

For Reference

NOT TO BE TAKEN FROM THIS ROOM

Ex LIBRIS
UNIVERSITATIS
ALBERTAENSIS



For Reference

NOT TO BE TAKEN FROM THIS ROOM



Digitized by the Internet Archive
in 2019 with funding from
University of Alberta Libraries

<https://archive.org/details/EFPercival1968>

THE UNIVERSITY OF ALBERTA

FOUR TYPES OF CONFORMITY RESPONSES
AND PERSONALITY CORRELATES

by



ELIZABETH FOX PERCIVAL

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF ARTS

DEPARTMENT OF PSYCHOLOGY

EDMONTON, ALBERTA

JULY, 1968

Thesis
1968 (F)
170

11.

UNIVERSITY OF ALBERTA
FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "Four Types of Conformity Responses and Personality Correlates" submitted by Elizabeth Fox Percival in partial fulfilment of the requirements for the degree of Master of Arts.

Abstract

The purpose of this study was to investigate conformity behavior in a multidimensional manner with consideration of the reference group concept as an important variable. Four types of conformity responses were assessed: conformity, counterconformity, independence, and group dependence.

The design provided a manipulation of norms representing reference group opinions on issues previously rated as neutral by the Ss. Responses were assessed on these items subsequent to the influence manipulation to classify Ss into the four groups and an attempt was made to assess personality correlates.

On the basis of a reference group questionnaire Ss were classed as having or not having a reference group of high school students, teachers, juvenile delinquents or a combination of these. For the conformity manipulation, neutral items were used with norms of the three possible reference groups. Patterns and level of responding on these items served to classify subjects as conformists, counterconformists, independents or group dependents. Tests of social desirability, nonconformity, and conceptual development were included for examination of correlates of these different response categories.

Those with a reference group were significantly higher than those without a reference group on total

conformity and social desirability. Group dependents and conformists were significantly higher than independents on social desirability. Other predictions were not supported. The variables were not correlated with each other and the Interpersonal Topical Inventory was not very reliable.

Possible reasons for the lack of findings were discussed.

Acknowledgements

I would like to express my sincere appreciation to Dr. Brendan G. Rule for her valuable guidance throughout this project. I would also like to thank my committee members, Dr. W. A. Blanchard and Dr. J. C. Hackler for their suggestions and cooperation.

I extend my thanks also to all those at Jasper Place High School whose cooperation made this research possible, especially Mr. E. Meyer and Mr. W. Kunkel.

Table of Contents

	Page
Abstract	iii
Acknowledgements	v
Table of Contents	vi
List of Tables	viii
Introduction	1
Method	27
Subjects	27
Materials	27
Procedure	36
Results	38
Reference Group Questionnaire	38
Conformity Classifications	40
Total Conformity	42
Systems of Conceptual Development	42
Sex and Education Differences	44
Reliability of Conceptual Systems	45
Discussion	47
References	57
Appendices	68
A Reference Group Questionnaire	68
B Initial Attitude Items	70
C Conformity Measure	72
D Nonconformity Scale	74
E Interpersonal Topical Inventory	77
F Social Desirability Scale	86

	Page
G General Information Sheet	88
H General Questions	89
I General Instructions for First and Second Sessions	90

List of Tables

		Page
Table 1	Summary of Interpersonal Topical Inventory Classifications, First Testing	35
Table 2	Means and <u>t</u> tests for Those With and Without Reference Groups on the Other Measures	39
Table 3	Frequencies and Percentages for Those With and Without Reference Groups on the Interpersonal Topical Inventory	39
Table 4	Summary of Analysis of Variance on Nonconformity Scale for the Three Conformity Groups	40
Table 5	Summary of Analysis of Variance on Social Desirability for the Three Conformity Groups	41
Table 6	Intercorrelations of the Measures	42
Table 7	Summary of Analysis of Variance on Total Conformity for the Three Cognitive Stages	43
Table 8	Summary of Analysis of Variance on Nonconformity Scale for the Three Cognitive Stages	44
Table 9	Summary of Analysis of Variance on Social Desirability for the Three Cognitive Stages	44
Table 10	Summary of Means and <u>t</u> tests for Sex Differences on the Other Measures	45
Table 11	Summary of Interpersonal Topical Inventory Classifications, Second Testing	46

Introduction

Since Sherif's (1935) classic study of social factors in perception using the autokinetic effect, and especially since Asch's (1951, 1952) more recent research on social influence, much interest has been generated in conformity research. Although there are many well demonstrated findings and several models, there is still much contradiction and many unanswered questions in the area. Review articles on conformity (e.g. Allen, 1965; Blake & Mouton, 1961a; Hollander & Willis, 1967) exemplify these facts clearly.

Conformity behavior is usually defined as behavior which is influenced by a group, thus increasing the congruence between the individual and the group (Allen, 1965). It is usually assumed that there is initially a conflict between the individual and the group (Allen, 1965) although not all writers and researchers hold to this view (e.g. Bernberg, 1954; Vaughan, 1964; Willis, 1965). Willis (1965), for example, defines conformity as "behavior intended to fulfill normative group expectations as these expectations are perceived by the individual" (p. 376). Conformity should be distinguished from mere conventionality or uniformity, simple congruence of attitudes, behaviors, etc. Krech, Crutchfield & Ballachey (1962) make this point and Beloff (1958) distinguished between acquiescence, dynamic agreement with a group in a situation with conflict present, vs.

conventionality, congruence of events. A somewhat similar distinction has been made between two criteria of conformity: congruence vs. movement (Hollander & Willis, 1967; Willis, 1965; Willis, 1968).

Two basic problems in the area center around personality correlates of conformity behavior and the generality of conformity. An inherent part of both of these issues is the conceptual model of conformity under consideration. Hollander & Willis (1967) cited the matter of models as one of the major problems in current conformity research. Because this issue underlies the two previously mentioned problems, the discussion of conformity will begin with consideration of the most prevalent models.

Perhaps the most prevalent view is that conformity is one pole of a bipolar dimension. The opposite pole has been considered to be independence, counterconformity (alternatively labelled anticonformity), or simply nonconformity.

Allport (1934) dealt only with conformity and nonconformity, labelling it neither independence or counterconformity. His J-curve hypothesis was based on fulfilling purposive, prescribed acts, i.e. fulfilling common rules. However, such a definition is not a common definition of conformity which usually implies giving in to group pressures rather than simply fulfilling conventional behavior expectations such as

stopping for red lights. Walker & Heyns (1962) viewed counterconformity as the antithesis of conformity. Bass (1961) holds a similar view except that he calls the polar extreme "deviation" which he sees as the mirror image of conformity.

Those who consider independence the polar opposite of conformity include Asch (1951, 1952, 1961) and Jahoda (1959). (Asch, however, rarely used the word conformity and instead preferred to write of independence and yielding). The Asch-type situation, because of its relative lack of ambiguity, favors the use of independence-conformity as it is generally assumed that the subjects are aware of the correct response and thus either express that response, are independent, or yield to the group, conform. In such a situation the opportunity for counterconformity or deviation seems somewhat limited. In other words, the situation itself seems to lend itself to only two modes of responding (although this, of course, is not entirely the case). Jahoda similarly seems to allow for only two modes of responding. Ironically she cites Cooley (1922) as supporting her views; yet Cooley never speaks of independence and seems to adhere to a somewhat different model. Cohen (1958) based his probability model on Asch's work and also allowed for only two responses: conformity and independence.

A third model provides for three modes of responding: conformity, independence, and counterconformity. This

appears to be a triangular model and is advocated by Krech, Crutchfield & Ballachey (1962). Willis (1963) and Willis & Hollander (1964a) maintain a similar model except that counterconformity is called anticonformity. Willis (1968) maintains that it may be different from the Krech et al. model in that in the Willis model anticonformity is clearly the polar opposite of conformity while independence constitutes a separate dimension. However, Krech, Crutchfield & Ballachey seem to imply the same thing when they state that conformity and counterconformity are both examples of dependent behavior. They suggest that for the counterconformist the group may simply serve as a negative reference group. Recently Smith (1967a, 1967b) has also argued for two varieties of nonconformity: independence and anticonformity.

Finally, Willis (1965) proposed a diamond model (also described in Willis & Hollander, 1964b; Willis, 1968). This provides a fourth mode of responding, variability. It is the polar opposite of independence and is also independent, in contrast to conformity and anticonformity which are both dependent, but it differs from independence. Independence is exhibited when an individual is not influenced by the group and is completely self-consistent (i.e. maintains the same responses in pre- and post-influence measures); variability is exhibited when an individual is not

influenced by the group but is not self-consistent (i.e. his post-influence responses are exactly opposite to his pre-influence responses, thus this appears to be self-anticonformity). While this model is theoretically appealing in that it is perfectly balanced with the two dimensions, conformity and independence, yielding four response modes, it does not seem to cover the behavioral possibilities.

Cooley (1922) while not really proposing any formal model of conformity suggested two possible kinds of nonconforming behavior. The first he called rebelliousness which could also be called counterconformity perhaps. The second was remote conformity. This is behavior which is related to standards that are remote or unusual rather than being related to present or commonplace standards. It is a case of keeping time to a different drummer. No model presented accounts for such behavior yet there are theoretical and empirical reasons for supposing such a behavior alternative to be relevant. It suggests, for example, that a person may respond to a situation in terms of norms of a particular reference group which may not be present.

Evoking the reference group concept when dealing with conformity seems crucial. Hollander (1959) suggested considering a person's frame of reference. Numerous writers (e.g. Allen, 1965; Hollander, 1964; Sherif & Sherif, 1964; Willis, 1965) make the obvious

statement that conformity must be to something and deviation from something. Conformity is relevant to an external criterion, a norm, and the norm is a property of some group. One must consider the norms being used to evoke conformity (or a lack thereof).

Sherif & Sherif (1964) go so far as to say that conformity may be assessed in terms of any standards but that it is only meaningful to assess it in terms of the norms of a person's reference group. Although this may be extreme, it seems obvious that some consideration of an individual's reference group is indicated. This suggestion is by no means original but neither has it been widely used.

A reference group may be defined as a group to which an individual relates himself or to which he aspires to relate himself (Sherif, 1953). Hartley (1957) defined a reference group as a group with which an individual manifests a psychological identification. It may or may not be a membership group. Any individual may have several reference groups and these may conflict with one another. Sherif (1953) perceived one of the major roles of a reference group as an anchor: the values and norms of an individual's reference group constitute the anchorages to which the individual relates. It serves as part of one's frame of reference. Newcomb (1950) suggested that an individual may have both positive and negative reference groups, the former

being groups to which one is motivated to be accepted, the latter being groups which the individual is motivated to oppose.

Kelley (1952) proposed two functions of reference groups, a normative function and a comparison function. The first is motivational whereas the second is perceptual (the group serves as a standard for comparison which the person uses when making judgments).

Shibutani (1955) mentioned three uses of the term reference group: (1) a comparison point, (2) groups to which individuals aspire, and (3) those whose perspectives are assumed. Turner (1955-56) argued that the narrow sense in which Sherif and Shibutani prefer to use the word, the group whose perspectives and values an individual assumes, is a misuse of the term, such a group should merely be called an identification group. This appears to be a semantic problem only. Rosen (1955a) dealt with significant others (equated with reference group) in terms of assumed perspectives and identification and also (1955b) measured reference groups specifically in terms of a comparison function and perceived importance, thus combining several uses of the term.

Eisenstadt (1954) stressed norms, stating that people accept and follow them and it may be incidental that these are associated with any one particular reference group. The group becomes a symbol of a norm or value and chiefly for this reason is the reference

group important. It seems possible, however, that the reverse of what Eisenstadt said could also be the case. That is, perhaps an individual is motivated to join a group for other reasons and then gradually assumes the perspectives, values, and norms of the group. Although he stressed that the norms come first and the group is incidental, perhaps the group could be of primary importance and then the acceptance of the norms might follow.

The specific relationship between reference groups and conformity has been written about but infrequently dealt with empirically. The most insistent advocates of the importance of employing the reference group concept when dealing with conformity have been the Sherifs (Sherif, 1953; Sherif, 1961; Sherif & Sherif, 1964). Others, however, have suggested the possible importance of such an approach (e.g. Hollander, 1959; Hollander, 1964; Krech, Crutchfield & Ballachey, 1962). Jahoda (1959) listed several aspects of conformity, one of which was reference group behavior and group membership.

Slightly more empirical approaches have been evidenced also. Somewhat by chance, Israel (1963) concluded that some of her independents had simply rejected the experimental group as a reference group and instead were using norms of another group (this is cited as an example of Cooley's remote conformity).

Others have employed the reference group concept, making no attempt to measure the concept. For example, Smith (1967a) gave norms of a supposed reference group to evoke conformity but it was only an assumption that the group he used did, in fact, serve as a positive reference group for his subjects.

More specifically, Sherif & Sherif (1964) were concerned with reference groups but their definition was very limited. They viewed a reference group as a person's best friends (i.e. a group of 4-12 at most). They were concerned with conformity in terms of a group's latitude of acceptance of behavior specifically related to group norms.

Newcomb (1950) viewed his Bennington study (1943) of attitude change in terms of shifts in reference groups, both positive and negative. Siegel & Siegel (1957) also dealt with changes in attitudes as a function of shifting membership and reference groups. White (1957) did not find that accepting the group as a reference group led to more conformity but perceiving the group as opposed to a different reference group did produce less conformity.

Nahemow & Bennett (1967) reported that subjects "independently conformed" to the norms of a positive reference group but did not necessarily conform to authorities and were not generally persuasible (measured as compliance, acquiescence). (The writer would call such Ss group dependents rather than conformists, see

pages 24-25).

In sum, it now seems apparent that many of the problems of both personality correlates of conformity and the generality of conformity rest heavily on the conceptual model of conformity employed. One might get very different results looking for correlates of conforming and independent behavior than he would looking for correlates of conforming and counter-conforming behavior. And one might find some generality of conformity if conformity behavior is all behavior which is not independent but might find less generality if he allows for three or four different response modes. Both the predictions and the results might vary in the use of a unidimensional as contrasted to a multidimensional approach. Further one might predict and find differences based on whether he did or did not consider the reference groups of the subjects.

The generality of conformity is still an unsolved problem. Many are committed to the idea that conformity is general although the empirical evidence is not overwhelming. There have been several approaches to the generality of conformity, stemming from quite different conceptualizations.

One approach has been to assume that conformity is a stable trait and then simply look for personality correlates of conformity as measured in any one situation. Bass (1961) simply assumed that conformity may be a

general trait. Another view is to look for consistency within a single experiment among various tasks (i.e. using various kinds of stimuli). Crutchfield (1955) used such an approach as did Endler (1961), Tuddenham (1958), and Janis & Field (1959a) in considering the generality of persuasibility. A still different approach has been to look for consistency between various situations. This approach has been employed by Back & Davis (1965), Blake, Helson & Mouton (1956), and Wiener, Carpenter & Carpenter (1957).

On the other hand, some have stressed primarily the situational determinants of conformity behavior. Such approaches are reviewed by Blake & Mouton (1961a, 1961b). Hollander (1959, 1964) rejected the notion that conformity is a stable trait and urged consideration of the situation and the particular motives and perceptions of the individual.

The first problem, then, is the generality of conformity and from there the discussion will move to specific personality correlates of conforming behavior, individual differences in conformity, then to the situational determinants, and finally to interactions between the individual and the group.

There is some evidence for the generality of conformity at least within certain situations. Blake, Helson & Mouton (1956) found some consistency between three tasks within one situation. The tasks were

perceptual, attitudinal, and factual. Tuddenham (1958) reported some generality in three judgmental problems: perception, opinions, and information. Endler (1961) found a general conformity factor when using different kinds of stimuli, perceptual and informational, but there was no relationship between conformity and the personality variables included. Chipman (1966) reported a consistency to conform or remain independent regardless of the difficulty of the task or the amount of social pressure. All of these studies, however, deal only with consistency on different tasks or with different conditions within one type of situation, a Crutchfield-type setting. Back & Davis (1965) did find small but consistent tendencies to conform in three different situations: perceptual judgments in a Crutchfield situation, self-reported acceptance of peer norms, and self-reported acceptance of authority pressures. A related study is that of Janis & Field (1959a) in which they found evidence for generality of persuasibility and Ferguson (1944) also found some generality of suggestibility.

Others have found no evidence for generality. Harper (1947) did not find evidence using a paper and pencil measure but he was testing ideology of conformity, actually a measure of conventionality. He reported that females showed more of a tendency toward generality than males. Goldberg (1954) found no evidence for

generality in nine different conditions (varying number of exposures, distance of disagreement, and size of group). Levy (1960) did not even find a stable tendency to conform within one situation with one task (conformity decreased in later trials). McGee (1962) found no correlation between two measures of conformity: autokinetic and spool-packing. It may be questioned, however, whether the latter was really a measure of conformity. McDavid & Sistrunk (1964) reported different correlates of conformity behavior in two situations: normative and informational. Wilson (1960) also reported that people concerned with informational influence, self-correction, differed in their conformity responses from those concerned with normative influence, self-accomodation.

Vaughan (1964) suggested somewhat of a compromise. He reported that trans-situational behavioral consistency might be normally distributed throughout the population; at the extremes this might be a consistent personality trait but for the majority, situational factors are most important. Wiener, Carpenter & Carpenter (1957) also found some people consistently high on two very different measures but others not consistent. And Steiner & Vannoy (1966) found differences between Ss who conformed in two situations and Ss who conformed in one but not the other.

Despite the problems, as demonstrated above, some

generalizations can be drawn about the personality of the conformist. Because it has been shown that there is a relationship between opinion change, persuasibility, etc. and conformity (Linton & Graham, 1959), data from this area of research will also be included where relevant.

It is generally true that those who conform are less intelligent than those who do not (Crutchfield, 1955; DiVesta & Cox, 1960; Tuddenham, 1959; Vaughan, 1964; White & Vaughan, 1967), although Youniss (1958) found no relationship between conformity and intelligence and Janis & Field (1959b) found no relationship between IQ and persuasibility.

Authoritarianism has been found to be positively related to conformity (Crutchfield, 1955; Vaughan, 1964; Vaughan & White, 1966; Wells, Weinert & Rubel, 1956; White & Vaughan, 1967). Others have not found this relationship (Endler, 1961; Weiner & McGinnies, 1961; Youniss, 1958). In addition, conformists seem to be more conventional and conservative (McDavid & Sistrunk, 1964; Mann, 1959; Tuddenham, 1959). And conformists have been shown to be more other-directed than non-conformists (Back & Davis, 1965; Centers & Horowitz, 1963).

Several motivational concepts have been related to conformity. Conformists are generally high on need affiliation (Hardy, 1957) although this depended on

whether or not there was unanimous agreement among the confederates. They are more oriented toward social approval (McGhee & Teevan, 1967; Moeller & Appelzweig, 1957; Schroder & Hunt, 1958; Strickland & Crowne, 1962). Social desirability (Edwards, 1957) appeared to have a complex interaction with change behavior although this was attitude change not actual conformity behavior (Goldstein, 1960). However, there may be some relationship between the two (e.g. Linton & Graham, 1959). Social Desirability was positively related to conformity in a high fear appeal situation (significant for males only) and negatively related to conformity in a minimal fear appeal condition (for females only).

Conformists are less confident (DiVesta, 1959; Fisher, Williams & Lubin, 1957), although Meunier & Rule (1967) found a negative relationship between conformity and confidence for low test anxious persons only. They are more test anxious (Meunier & Rule, 1967; Meyers & Hohle, 1962). Manifest anxiety, however, is not clearly related to conformity in any consistent manner. MAS has been shown to be negatively correlated with conformity (Mangan, Quatermain & Vaughan, 1960), positively correlated with conformity (Vaughan, 1964), differentially related to conformity (Steiner & Vannoy, 1966), and unrelated to conformity (DiVesta & Cox, 1960; Meyers & Hohle, 1962).

Conformists may be less complex (Barron, 1953)

although Lundy & Berkowitz (1957) found the reverse to be true using the Kelly Rep Test instead of the Barron Welsch Art Scale.

Conceptual functioning as defined by Harvey, Hunt, & Schroder (1961) involves stages of conceptual development ranging from concrete to abstract thinking. Four systems are described in the theory. System 1 individuals are most concrete, authoritarian, field dependent, and characterized by unilateral dependence. They have highly fixed and simple rules for categorizing stimuli, they are intolerant of ambiguity and use norms and authorities as sources to structure their environment. They tend toward categorical, black-white thinking and minimization of conflict. System 2 individuals are negatively independent. Actually although Harvey, Hunt & Schroder call this stage negative independence, the author would prefer to consider these people dependent, they appear to reject others in the manner of a counterconformist and are thus dependent in the sense that they do rely on others, simply rejecting them quite consistently. Their orientation is absolutistic and they tend to accept the self and reject others. System 3 individuals are again dependent but not unconditionally (as System 1's are). They are oriented toward maintaining close interpersonal relationships and are more flexible in categorizing stimuli. System 4 individuals are interdependent and are most complex. They have flexible

schemata for categorization. They are described as autonomous. Tuckman (1965) demonstrated that System 1's are highest on authoritarianism (with 4's lowest), 2's are lowest on need affiliation and highest on anti-authority tendencies.

Harvey (1964) found the systems to interact with conformity. With high authority, System 1 individuals conformed most followed by 3, 4, and 2 in that order but with low authority, the order was 3, 2, 1, 4.

Other studies may be interpreted as suggestive evidence for the theory and its relation to social influence. Berkowitz & Lundy (1957) found those low on cognitive complexity to conform more to authorities while those low on interpersonal confidence (high on need affiliation) to conform more to peers (comparable to Systems 1 and 3 respectively). McDavid (1959) found differences between message and source oriented Ss (like Systems 4 and 3 respectively), the former generally conforming less. Wilson (1960) found Ss concerned with self-correction (like informational influence) were not concerned with the source of information while Ss concerned with social accommodation (like normative influence) conformed to attractive but not unattractive sources (similar to Systems 4 and 3 respectively).

Smith (1967a, 1967b) reported significant relationships between his scale of nonconformity and

conformity behavior. Conformists scored highest on the scale, counterconformists lowest, and independents in the middle.

Individual differences which relate to conformity include sex and age. Sex differences are important with females generally conforming more than males (Beloff, 1958; Crutchfield, 1955; DiVesta & Cox, 1960; Tuddenham, 1958; Whittaker, 1965). But Tuddenham found this to be true only in a college sample, the reverse held for an adult sample. Also Janis & Field (1959b) found significant sex differences in susceptibility to persuasion (females more susceptible than males).

Age relates to conformity in that there is a decrease in conformity with increasing age (Marple, 1933), although more specifically Costanzo & Shaw (1966) showed an increase in conformity up to adolescence and then a decrease with age.

The situational determinants of conformity have also received much attention. Both the materials and the social context (e.g. the characteristics of the group) are crucial.

It has been claimed that there is generally more conformity in attitudes and opinions than in factual matters (Allen, 1965) although Crutchfield (1955) reported the opposite and Julian & Steiner (1961) had no significant results for a factual-opinion main effect. People conform more when the tasks are difficult than

when they are easy (Blake, Helson & Mouton, 1956; Patel & Gordon, 1960). And there is more conformity when the stimuli are ambiguous than when they are clearcut or highly structured (Crutchfield, 1955; Youniss, 1958). Some have not found this however, (e.g. Wiener, Carpenter, & Carpenter, 1957). And Wiener (1956) showed that the critical variable was actually uncertainty of judgment rather than actual stimulus ambiguity.

Simply informing people of group opinion is sufficient to induce some conformity (Harper & Tuddenham, 1964; Marple, 1933; Moore, 1921; Wheeler & Jordan, 1929). Kelley & Woodruff (1956) demonstrated changes in group anchored opinions simply by informing individuals that other members of the group had changed their opinions.

The size of the group is important as well as the unanimity or lack thereof (Asch, 1952, 1961). Asch showed that increasing the size of the group up to three produced increased conformity, and if the group was not unanimous there was a decrease in conformity.

The source of the pressure is also important. Marple (1933) reported more attitude change to group opinion (a majority) than to expert opinion. Moore (1921) had somewhat similar results although on some topics majority and expert opinion produced nearly equal change. Luchins & Luchins (1955, 1961) found most conformity when a peer majority and an authority agree,

less for authority only, and even less for a majority only. Lundy & Berkowitz (1957) and Berkowitz & Lundy (1957) also found differential susceptibility to peers and authorities depending on various personality characteristics of the subjects.

The specific relationship of the person to the group is also important. Two of the crucial variables seem to be group cohesion and the attractiveness and valuation of the group. Much of the evidence for this has come from research in attitude change and also from research stemming from Festinger's theory of social comparison.

Festinger's social comparison theory (1950, 1954) postulates that pressures toward uniformity increase monotonically with increased cohesion in the group. Cohesion is equated with attraction. It is postulated that attractive groups may have more power over the individual. Several studies have dealt directly with this theory. Back (1951) found that increased cohesiveness produced greater change in a two-person situation (the source of cohesiveness was attractiveness). Gerard (1953) found more pressure toward uniformity in homogeneous than heterogeneous groups. Gerard (1954) reported more attempted influence in high attraction groups than low attraction groups.

Brock (1965) conducted a field experiment and found that similarity increased modification of behavior.

Bersheid (1966) reported more conformity where partners had similar values on value dimensions relevant to the situation but not when the partners had similar values on irrelevant dimensions. Finally, Moran (1965) testing Festinger's theory, found no support for the hypothesis that cohesion (attraction) leads to greater conformity.

Berkowitz (1957a) found more conformity with liked partners but he stated that liking increased the perceived merit of the group's opinion rather than Festinger's notion that the group gains more power over the individual. Berkowitz (1957b) showed that with interdependence, Ss were more highly motivated toward group tasks. Jackson & Saltstein (1958) found that normative groups in which there were interdependent common goals conformed more than modal groups in which there were no common goals.

Cohn, Yee & Brown (1961) found a tendency for children to change preferences toward those of a preferred group when there was no pressure to do so. Hogge (1967), dealing with attitude change, did not find support for his hypothesis that positive affective responses to a primary reference group would correlate positively with the amount of attitude change toward the group mode.

Studies dealing specifically with conformity are somewhat equivocal. Bass (1961) postulated that conformity is greater in more attractive groups. Julian

& Steiner (1961) reported a significant main effect for acceptance-rejection of the group. Kiesler & Corbin (1965) found that when Ss are not committed to continue in a group but are attracted to it there is a monotonic relationship between attraction and conformity; when Ss are committed to remain in a group but are not attracted to it, if they conform, their attraction increases. McKeachie (1954) reported that an increase in cohesion produced more conformity. But Downing (1958) did not find support for the hypothesis that there is more conformity in cohesive groups and Harper & Tuddenham (1964) did not find more conformity in attraction than nonattraction groups.

Wyer (1966) reported that for Ss highly attracted to the group but not accepted by the group, conformity was positively related to attraction. However, when Ss were not only attracted to the group but also accepted by the group, conformity was not directly related to attraction but was dependent on other variables (e.g. the amount of incentive to perform well).

The person within the situation may be more or less susceptible to conformity pressures depending on his orientation toward the stimuli and his position in the group. His degree of familiarity with the stimuli is important, the more familiar he is the less he conforms (Harvey & Rutherford, 1958). His degree of certainty or uncertainty about the stimuli will also

influence the amount he conforms, more conformity occurring when he is uncertain (Fisher, Williams & Lubin, 1957; Wiener, 1956). Sherif & Harvey (1952) said that uncertainty eliminated anchorages thereby increasing conformity or convergence in group situations.

The distance of the disagreement also influences the amount of conformity. Goldberg (1954) found that Ss always conform by a constant percentage of the distance. However, Hovland & Pritzker (1957) found that while the amount of change increased with an increase of advocated change, the ratio of change decreased from least to most advocated change rather than remaining constant. Rule & Renner (1967) found an increase in discrepancy related monotonically to opinion change. Helson, Blake & Mouton (1958) reported more shift when there was increased divergence as did Hogge (1967).

DiVesta (1959) showed a decrease in yielding as Ss became more involved (i.e. considered the task to be a measure of intelligence) and as they were bolstered (given favorable evaluations). Youniss (1958), however, found no relationship between success and failure and conformity.

It can be seen from this review that the literature is disparate and that perhaps a somewhat new approach is needed. It appears critical to view conformity in more than simple unidimensional terms. And the reference

group may contribute to a clarification as to what or whom people will or will not conform.

This study was an attempt to view conformity both in terms of reference groups and in a multidimensional manner. It was hypothesized that few people are true conformists (will conform to any norm in any situation), a statement also made by Hollander (1964). In addition, there are few true counterconformists. It appeared more reasonable that many people will conform to some norms, in some situations, but will counterconform or remain independent to other norms in other situations. The assumption was that this would depend upon the group presented. If the norms were given for a group that served as a positive reference group for the individual, he would conform. However, if the norms were given for a group that did not serve as a reference group for the individual, he would not conform (and might either remain independent or counterconform, the latter presumably occurring when the group served as a negative reference group).

It was predicted, thus, that there could be four response patterns to a series of critical conformity trials. The four groups could be called (1) conformists, (2) counterconformists, (3) independents, and (4) group dependents. The last would be those who rely on a reference group or groups when forming opinions -

agreeing with some groups, i.e. conforming, but disagreeing with others, i.e. remaining independent or counterconforming.

Although many personality variables could have been included either because they have been used before or for theoretical reasons, the three selected for inclusion were the Nonconformity Scale, Social Desirability, and the Interpersonal Topical Inventory. The first was chosen because it seems obvious that a test designed to measure conformity should relate to a behavioral measure of conformity. Social Desirability was included as it seems related to approval needs, social acceptance and such, motives which seem to relate to conformity behavior, at least for some individuals. The last was included to try to relate the more cognitive sphere to conformity behavior.

On the Nonconformity Scale low scores indicate more nonconformity so it was predicted that counterconformists and independents would have lower scores than conformists or group dependents. Conformists might be expected to be highest with counterconformists lowest. For Social Desirability it was also predicted that conformists and group dependents would be high with independents and counterconformists being low, the latter probably the lowest. On the Interpersonal Topical Inventory it was predicted that conformists would be primarily System 1's as they rely on external

authority and although high school students, teachers, or juvenile delinquents might not be "authorities" on the specific issues of the conformity test, it would seem that in the absence of other information or norms, the System 1's would rely on what was given and hence be conformists. Counterconformists were expected to be System 2's as those at System 2 are characterized by negativism. Group dependents were expected to be at System 3 as these are the people primarily concerned with close interpersonal relationships. Independents should be at System 4 as they are no longer dependent as System 1 and 3 people are nor are they negatively independent as are System 2's.

Method

Subjects

Subjects were 126 high school students at Jasper Place Composite High School, Edmonton, Alberta. All subjects were tested in social studies classes. Forty were in accelerated classes, 73 in average classes, and 13 in below average classes. There were 58 in Grade 11, 68 in Grade 12. There were 67 males and 59 females. Ages ranged from 15 to 18 inclusive. Because there were two sessions, some Ss were lost; originally 154 were tested but complete data from both sessions were collected from only 126 Ss. One class was eliminated from the analysis because of lack of cooperation during the first session.

Materials

a. Reference Group Questionnaire. This was designed by the writer and employed to assess whether or not Ss did or did not seem to identify with some reference group. The operational definition of having a reference group was simply high agreement with the attitudes and opinions of a given group.

The questionnaire consisted of 11 items, 3 dealing with social concerns, 4 dealing with religious issues, and 4 with preferences. Ss stated whether their attitudes were similar to or different from each of 5 groups: friends, high school students, parents, teachers, and

juvenile delinquents. The 11 items used were selected as the most discriminating from 20 items administered in a pilot study. Appendix A contains a copy of this questionnaire.

Ss stated their agreement or disagreement with each group for each item, thus their total agreement for each group could range from 0 to +11. The cut-off to establish a reference group was set at +8. Any S with a score of +8 or above for friends, high school students, teachers, or juvenile delinquents (or any combination of these) was said to have a reference group ($n = 106$). Those with no group above the cut-off were said to have no reference group ($n = 19$). (One S did not complete the questionnaire).

This questionnaire was also used to check the comparability of friends and high school students. It was hoped that high school students could be used as the reference group in the conformity manipulation but if the data from this questionnaire had not indicated that, an attempt would have been made to manipulate "friends" more specifically. A phi coefficient was computed to find the relationship between friends and high school students (using a 2 x 2 table with agree-disagree, high school students - friends). The phi computed was .43. Converting this to a chi square (Peatman, 1963), the obtained result was $\chi^2 = 38.47$, $df = 1$, $p < .001$. Thus it was assumed that it would be possible to use

high school students as the source of norms for the conformity manipulation and that this would be comparable to friends.

This measure of reference groups is similar to a measure used by Hartley (1960b). Her data (1960a, 1960b) suggest that norm compatibility, preferences and perceived values are crucial to the acceptance of a reference group and presumably to maintaining that group as a reference group.

b. Initial Attitude Items. A questionnaire of 22 items concerning primarily the arts was administered to identify the most neutral items possible. Ss were asked to record their agreement-disagreement on a 5-point Likert-type scale. They were also asked to rate their familiarity with the issue by checking very familiar, somewhat familiar, or not at all familiar for each item. Appendix B contains a copy of this questionnaire.

c. Conformity Measure. The 12 most neutral items from the above questionnaire were the critical items for the conformity measure. Each item was accompanied by a statement of a fictitious norm (e.g. most high school students agree strongly with this item). A copy of this measure is in Appendix C.

The critical items were selected using three criteria for neutrality: mean absolute score, mean raw score, and mean familiarity. Items were rank ordered on each criterion and then the mean of the

three ranks was used for selecting the best items. The 12 items with the highest mean rankings were selected. Over all items the mean absolute scores ranged from .331 to 1.506, for the 12 items selected the range was .331 to 1.097. The overall mean raw scores ranged from 0 to 1.188, the 12 items selected ranged from 0 to 1.052. Mean familiarity over all items ranged from 1.34 to 2.36 with the selected items having a range of 1.34 to 2.03.

The 12 selected items were rank ordered using the mean of the ranks on the three above criteria as the basis of ranking. They were then divided into three sets of four items, each set having a mean rank of 6.5. Norms were counterbalanced over sets. Six forms of the test were constructed such that each set of items occurred once with each source of the norm and with both directions (positive-agree, negative-disagree). Forms were designated A1, A2, B1, B2, C1, and C2. A, B, and C differed in which sets of items had which source (high school students, teachers, and juvenile delinquents). Forms labelled 1 and 2 differed in the patterns of positive and negative norms (each form had 6 positive and 6 negative norms). Thus A1 and A2 had the same sources for each item (3 for each group) but exactly opposite patterns of positive and negative norms. The items were then randomly ordered but this order was constant for all six forms.

Conformity was scored by giving each S a score

for each group (high school students, teachers, and juvenile delinquents), a total conformity score, and an absolute change score. Each item was scored from + 2 to -2: +2 indicated complete agreement with the norm (though not necessarily agreement with the item, of course), -2 indicated complete disagreement with the norm, 0 indicated neutrality. For each group the conformity score could range from -8 to +8, the total conformity score could range from -24 to +24, the absolute change score (shift regardless of direction summed over items) could range from 0 to 24. The distribution of total conformity scores ranged from -10 to +15 with a mean of 3.58. The distribution of absolute change scores ranged from 4 to 20 with a mean of 11.56.

Before the classification into the four conformity groups, an analysis of variance was done on the six forms to check their equivalence. There were no differences in absolute conformity. On total conformity there were no significant differences between A, B, and C nor were the interactions significant but the main effect of 1 and 2 was significant ($F = 18.546$, $df = 1/108$, $p < .01$). Thus, there was an order effect operating. The mean total conformity for the 1 forms was 1.80 while for the 2 forms it was 5.25. The writer does not know of an explanation for this order effect. The pattern of positive and negative norms was

somehow significant but it appeared to have no psychological meaning. Because of this difference, adjustments were made in the classification of subjects.

Independents and group dependents were classified by the same criteria for both forms (as their classification was not based on total conformity) but conformists and counterconformists were classified by different criteria. Because the total conformity scores were significantly higher on the 2 forms than the 1 forms, criteria were set such that Ss had to have higher total conformity scores on the former than on the latter to be called conformists. (The exact criteria are described below). The criteria for counterconformists were similarly adjusted. This helped to compensate for the fact that Ss generally had higher scores on 2 forms than 1 forms. Without such an adjustment more Ss responding to 2 forms would have been classed as conformists and very few responding to 1 forms would have been so classed.

Conformists and counterconformists were classified on the basis of total conformity scores with an additional requirement about the distribution of their scores over the three groups. Conformists had to have a certain total or above on total conformity (on 1 forms the criterion was +7 or above, on 2 forms it was +9 or above) and they had to have at least +2 on all groups. There were 10 conformists.

Counterconformists had to have a certain total or

below on total conformity (-5 or below on 1 forms, -4 or below on 2 forms) and at least -1 on each group. There were 3 counterconformists.

Independents were classified on the basis of an absolute change score of 8 or below with no other criteria, or, an absolute change score of 12 or below with -2 to +2 on all groups. There were 38 independents.

Group dependents were those who had at least +3 or above on 1 group and +2 or less on the other two groups, or, +3 or above on 2 groups and +2 or below on the other group. Thus there were two kinds of group dependents, those with one reference group and those with two reference groups. There were 48 Ss in the first category, 15 Ss in the second category for a total of 63 group dependents.

Because two measures were available for placement of Ss into categories it was decided that only those Ss who would be placed in the same category by both would be used. Thus only those Ss who fit two criteria (from the Reference Group Questionnaire and the Conformity Measure) were used as tests of the hypotheses. Only those conformists and group dependents who had been classed as having a reference group on the Reference Group Questionnaire would be included. And only those independents and counterconformists who did not have a reference group would be included. Using this double criterion there were 10 conformists, 3 counterconformists,

10 independents, and 56 group dependents.

d. Nonconformity Scale. This scale devised by Smith (1967a) consists of 28 items and 5 filler items with responses made on a 9-point Likert-type scale. Smith (1967a) reported a split-half reliability of .80. Scores can range from 28 to 252, the obtained range in this sample was 73 to 181 with a mean of 141.27. Higher scores indicate conformity, low scores indicate counterconformity, and scores in the middle range indicate independence. Appendix D contains a copy of this scale.

e. Interpersonal Topical Inventory. This is a measure by Tuckman (1966) of Harvey, Hunt, & Schroder's (1961) stages of conceptual development, ranging from concrete to abstract thinking. It is a paired-choice questionnaire with six topics and six pairs of choices for each topic. Scores over the 36 items are used to identify subjects at System 1, 2, 3, 4, as mixed systems, or as no system predominant. The obtained distribution for this sample in this study is shown in Table 1 and data from Tuckman (1966) are shown for comparison. Tuckman (1966) reported 76% of his Ss were classified the same using the ITI and the original Sentence-Completion Test (Schroder, Driver & Streufert, 1967). This inventory is in Appendix E.

f. Social Desirability Scale. This scale (Edwards, 1957) consists of 39 true-false items. Scores

Table 1

Summary of Interpersonal Topical Inventory

Classifications - First Testing

	This Study		Tuckman 1966	
	Frequency	Per cent	Frequency	Per cent
System 1				
10th decile	1	.79		
9th decile	0	-		
8th decile	0	-		
	<u>1</u>	<u>.79</u>	31	24.60
System 2				
10th decile	11	8.73		
9th decile	11	8.73		
8th decile	6	4.76		
	<u>28</u>	<u>22.22</u>	26	20.64
System 3				
10th decile	13	10.32		
9th decile	7	5.56		
8th decile	1	.79		
	<u>21</u>	<u>16.67</u>	22	17.46
System 4				
10th decile	20	15.87		
9th decile	4	3.18		
8th decile	0	-		
	<u>24</u>	<u>19.05</u>	30	23.81
Mixed				
10th-10th	3	2.38		
10th-9th	10	7.94		
9th-9th	3	2.38		
8th-8th	8	6.35		
10th-9th-8th	1	.79		
	<u>25</u>	<u>19.84</u>		
Unclassified	27	21.43	17	13.49
TOTAL	126		126	

ranged from 9 to 38 with a mean of 27.87 ($n = 114$ as not all Ss answered the full scale). High scores indicate more socially desirable responses. Edwards (1957) reported a split-half reliability of .83 for this test. Appendix F contains a copy of this scale.

g. General Information Sheet. This page contained questions about age, sex, grade, nationality, status, etc. Appendix G contains a copy of this information sheet.

h. Research Questionnaire. At the completion of the study a brief questionnaire was given to the Ss to obtain comments and to see whether they were suspicious of the procedure. Appendix H contains a copy of this.

Procedure

All testing was done in Social Studies classrooms during class time. The Experimenter was introduced as someone from the University doing research. Ss were told by the E that they were not forced to participate or to answer any objectionable questions but it was stressed that their cooperation would be appreciated and that the information requested was for research purposes only.

There were two experimental sessions, both lasting approximately one hour. During the first session Ss were not informed that there would be a second session. Sessions were separated by two to

three weeks with a vacation intervening.

During the first session Ss were given the Reference Group Questionnaire, the Initial Attitude Items, the Nonconformity Scale, and the Social Desirability Scale. A complete copy of the general instructions is contained in Appendix I.

During the second session Ss were given the conformity test and the Interpersonal Topical Inventory.

For 68 Ss there was an additional session 10 weeks later. During this session they again responded to the Interpersonal Topical Inventory and this was followed by a general talk by the E about conformity. Ss were also given an opportunity to ask questions at this time.

Results

The variables examined in this study were classifications of having or not having a reference group, total conformity scores, classifications of conformity responses (conformist, counterconformist, independent, and group dependent), social desirability scores, nonconformity scores, stages of conceptual development, sex, and educational level differences. It was not possible to class these as independent and dependent variables since the approach involved using different variables as dependent variables in various analyses.

Reference Group Questionnaire

The two groups into which Ss were classified on the basis of the reference group questionnaire were compared on the other measures. Table 2 shows the comparisons for Total Conformity, Nonconformity, and Social Desirability. The t tests yielded significant differences on total conformity and Social Desirability, those with a reference group being higher on each, but no significant difference on Nonconformity. Table 3 shows frequencies and percentages for the Interpersonal Topical Inventory. A chi-square on the frequencies was not significant showing no association between the two classifications.

Table 2

Means and t tests for Those With and Without Reference Groups on the Other Measures

	Reference Group	No Group	t	df
Total Conformity	3.97	1.47	2.21**	122
Nonconformity Scale	140.61	144.95	0.887	122
Social Desirability	28.24	25.60	1.77*	111

* $p < .05$ (one-tailed)

** $p < .025$ (one-tailed)

Table 3

Frequencies and Percentages for Those With and Without Reference Groups on the Interpersonal Topical Inventory

	Reference Group		No Group	
	Frequency	Per cent	Frequency	Per cent
System 1	1	.94	0	-
System 2	21	19.81	7	36.84
System 3	17	16.04	4	21.05
System 4	22	20.75	1	5.26
Mixed	20	18.87	5	26.32
Unclassified	25	23.59	2	10.53

Conformity Classifications

Analyses of variance were used to compare three of four groups identified on the conformity measure for each of the personality measures. Counterconformists were excluded because the n was only 3. As planned, only those who fit both criteria were used.

For the Nonconformity Scale it was predicted that scores would be highest for conformists, then group dependents, lower for independents and lowest for counterconformists. The means for conformists, group dependents, and independents were 136.80, 143.00, and 143.40 respectively. The F was not significant. The analysis of variance summary is shown in Table 4. A Duncan's multiple range test (Kramer, 1956) yielded no significant differences between the means.

Table 4

Summary of Analysis of Variance on Nonconformity Scale
for the Three Conformity Groups

Source of Variation	SS	df	MS	F
Between	341.737	2	170.868	-
Within	29368.000	73	402.301	

For Social Desirability it was predicted that conformists and group dependents would have the highest scores

and then there would be a decrease through independents with counterconformists being lowest. The means for conformists, group dependents, and independents were 28.90, 27.28, and 22.71 respectively. An analysis of variance yielded an F of 3.144, $df = 2/65$, $p < .05$. Table 5 contains the analysis of variance summary. A Duncan's multiple range test showed conformists and group dependents significantly different from independents but not different from each other ($p < .05$).

Table 5

Summary of Analysis of Variance on Social Desirability
for the Three Conformity Groups

Source of Variation	SS	df	MS	F
Between	168.382	2	84.191	3.144*
Within	1740.485	65	26.777	

* $p < .05$

For the Interpersonal Topical Inventory it was predicted that conformists would be at System 1, counterconformists at System 2, group dependents at System 3, and independents at System 4. A chi-square on the classification of conformity and the classification of conceptual development yielded a nonsignificant result ($\chi^2 = 10.574$, $df = 20$). Thus there was no significant

relationship between systems and the conformity groups.

Total Conformity

For the analyses described above, classifications were based in part on patterns of responding not just total conformity. Since these did not yield many significant results, further exploration of relationships considered total conformity regardless of pattern. Correlations among the measures did not yield significant results. These are reported in Table 6.

Table 6
Intercorrelations of the Measures

	Total Conformity	Nonconformity Scale
Total Conformity		
Nonconformity Scale	.09	
Social Desirability	.007	.076

Systems of Conceptual Development

The systems of conceptual development were compared to the other measures. System 1 was excluded because the n was 1.

The means for Systems 2, 3, and 4 on total conformity

were 3.357, 4.905, and 2.417 respectively. An analysis did not yield significant differences. The summary of the analysis of variance is shown in Table 7. A Duncan's multiple range test did not yield any significant differences.

Table 7

Summary of Analysis of Variance on Total Conformity for the Three Cognitive Stages

Source of Variation	SS	df	MS	F
Between	70.176	2	35.088	1.494
Within	1644.067	70	23.487	

The means for Systems 2, 3, and 4 on Nonconformity were 137.464, 144.810, and 141.125 respectively. An analysis of variance yielded no significant differences between these groups. Table 8 contains a summary of the analysis. A Duncan's multiple range test did not yield any significant differences.

The means for Systems 2, 3, and 4 on Social Desirability were 25.640, 27.600, and 29.095 respectively. An analysis of variance did not yield significant differences. Table 9 contains a summary of the analysis. A Duncan's multiple range test did not yield significant differences between the means.

Table 8

Summary of Analysis of Variance on Nonconformity Scale
for the Three Cognitive Stages

Source of Variation	SS	df	MS	F
Between	651.666	2	325.833	-
Within	25444.827	70	363.498	

Table 9

Summary of Analysis of Variance on Social Desirability
for the Three Cognitive Stages

Source of Variation	SS	df	MS	F
Between	138.297	2	69.149	2.213
Within	1968.370	63	31.244	

Sex and Education Differences

T tests were done between the sexes on the measures. None of the tests were significant. The results are shown in Table 10.

Because the high school students were divided into different level classes, analyses were done to see if there were any differences between the accelerated classes, the average classes, and the below average classes, or,

Table 10

Summary of Means and t tests for Sex Differences
on the Other Measures

	Males	Females	<u>t</u>	df
Total Conformity	3.134	4.085	1.158	124
Social Desirability	28.733	26.759	1.950	112
Nonconformity Scale	141.074	141.627	.158	124

between Grades 11 and 12. They were compared on total conformity, Nonconformity scores, and Social Desirability. There were no significant differences.

Reliability of Conceptual Systems

Since the results on the Interpersonal Topical Inventory were so unusual for the original testing, the test was readministered to some of the Ss. The obtained distribution on the second testing is shown in Table 11 (c.f. Table 1). A direct comparison of the Ss in both testing sessions showed that of those classed in one of the four systems, 14 of 30 or 46.66% were classified the same by both tests. Comparing all Ss (including mixed systems and unclassifiabes), 21 of 68 or 30.82% were classified identically but if those who were mixed on one occasion but predominantly one of the systems on the other occasion (e.g. a mixed 2-3 that was classed as 2 or

3 on the other occasion) were included, 31 of 68 or 45.55% were reliable.

Table 11
Summary of Interpersonal Topical Inventory
Classifications - Second Testing

	Frequency	Per cent
System 1		
10th decile	1	1.47
9th decile	2	2.94
8th decile	0	-
	<u>3</u>	<u>4.41</u>
System 2		
10th decile	8	11.77
9th decile	4	5.88
8th decile	0	-
	<u>12</u>	<u>17.65</u>
System 3		
10th decile	11	16.18
9th decile	5	7.35
8th decile	0	-
	<u>16</u>	<u>23.53</u>
System 4		
10th decile	8	11.77
9th decile	4	5.88
8th decile	0	-
	<u>12</u>	<u>17.65</u>
Mixed		
10th-10th	6	8.82
10th-9th	4	5.88
9th-9th	4	5.88
8th-8th	2	2.94
	<u>16</u>	<u>23.52</u>
Unclassified	9	13.24
TOTAL	68	

Discussion

The results of this study did not confirm most of the hypotheses as stated. The planned analyses provided little information regarding the four kinds of conformity behavior postulated. Only three of the predictions received support.

Subjects classed as having a reference group on the Reference Group Questionnaire, did have significantly higher total conformity scores than those with no reference group. This could possibly be an example of acquiescence. To be classed as having a reference group meant that Ss agreed with one or more groups at least eight out of eleven times. It made no difference which group or groups they agreed with. Similarly high total conformity scores did not depend on any selectivity or discrimination between groups, they simply indicated a general tendency to conform. Thus those with a reference group agreed with others on both questionnaires more than those with no reference group (who neither agreed with very many statements on the Reference Group Questionnaire or on the Conformity Measure). This difference on total conformity scores may, then, have been indicative of general tendencies to agree or disagree with others.

Similarly these two groups differed on Social Desirability. However, SD is not a measure of a response set to acquiesce. Edwards (1957) claimed it measured

a motive, a tendency to give socially desirable responses in test situations. If it is indeed a motive, it is probably related to an approval motive. Approval motivation (Marlowe & Crowne, 1964) has been shown to be related to conformity in an Asch type situation (Strickland & Crowne, 1962). Thus perhaps these two findings together could indicate a need for approval which leads to, or is related to, conforming to others. This interpretation would give more meaning to the first finding than simply evoking a response set explanation. However, such a conclusion is probably not warranted as there was no significant correlation over-all between Total Conformity and Social Desirability.

The other significant finding was that group dependents and conformists differed from independents on Social Desirability, the first two being significantly higher than the latter. As both conformity and group dependence were viewed as dependent behavior it is not surprising that those who are dependent on the external environment are more highly motivated to say socially desirable things about themselves (and perhaps gain approval) than those who are more internally oriented.

However, because of the lack of other findings it is necessary to view the above with caution. It is probably not wise to place too much confidence in the significant findings.

There are possibly many reasons for the general

lack of results. There appear to be three major problem areas. These are: (1) the sample, (2) the method, and (3) general methodological and theoretical problems of such studies.

As for the sample, it may be that in some way the sample was unusual. Although the writer has no information to bring to light the particular peculiarities of the sample (i.e. what the specific problems might have been), there is evidence in the data which points to such a conclusion.

The most direct evidence of the unusual nature of the sample is provided by the test-retest reliability of the Interpersonal Topical Inventory. The highest estimate of its reliability for this sample was only 46.66%. It does not, on the one hand, seem realistic to suppose that Ss were responding completely randomly (if they were, responses should have been fairly evenly distributed over the four systems and they would have been unclassifiable). But neither can it be concluded that the measure was sufficiently reliable to be considered seriously.

If the data on the Interpersonal Topical Inventory were not reliable, it may be that the other data were equally unreliable. Further evidence is the lack of correlation between Social Desirability and the Nonconformity Scale. Theoretically it seems that there should have been a high positive correlation between

these measures. Also the lack of correlation between total conformity scores and the Nonconformity Scale seemed bewildering. Again, one would expect a high, positive correlation.

Secondly, methodological problems may well account for some of the difficulties, though not the lack of correlation between the standard measures included. However, with respect to the conformity measure, there were several problems. Probably the most severe problem was the limited number of items. Four items per group were probably not sufficient to identify group dependents vs. independents. As conformists and counterconformists were identified on the basis of total conformity scores over 12 items, the problem was not so critical here. To identify independents, however, as distinct from group dependents it would have been desirable to have more items per group.

Another problem was that there was an attempt to use neutral items rather than dealing directly with change scores. This was done in an attempt to simplify the design of the study and avoid the problems of attitude change (e.g. the interpretation of a shift across the zero point as compared to a shift of equal units but on only one side of the midpoint). Perhaps this was unrealistic and even relatively neutral items are not neutral enough to be dealt with as if one's initial attitude was indeed at the midpoint.

The initial measurement of reference groups may also be questioned as there was little evidence that this did tap what is meant by a reference group. However, maybe one does adopt the attitudes and opinions of one's reference group and thus using congruence of attitudes and opinions is a plausible approach. It is similar to Hartley's (1960b) measurement of norm congruity and is like Newcomb's (1943) consideration of reference groups. Shibutani (1955) also favored defining reference groups as those whose perspectives are assumed. Beloff (1958) would call it a measure of one kind of conformity, conventionality, which is simply the concurrence of attitudes, mores, etc. within a culture or sub-culture. However, Rosen (1955a) stressed that there is a need for a better way to get at reference groups than questionnaires.

One further methodological problem relates to the testing conditions. As the research was conducted in a classroom setting, there was little control of the type possible in a laboratory situation. It is possible that many extraneous variables could have been operative. The extremely subtle influences of the manner in which the teachers introduced the experimenter could have been crucial in addition to any comments they may have made to their classes either before the E arrived or between the testing sessions. The influence of the presence of others (mostly friends) surrounding

each S as he participated in the research could also have been of importance. Uncontrolled talking also could have numerous unknown effects, although an attempt was made to limit this.

The fact that a nonlaboratory group was used may have been important also. Carter, Hill & McLemore (1967) pointed out that divergence or deviation may be viewed differently in nonlab groups and possibly people may vary their perceptions of a range of assimilation or acceptance such that they do not perceive themselves deviant.

Finally, demand characteristics (Orne, 1962) may have been different in a high school population and a nonlaboratory group. It was fairly evident that Ss did not make accurate hypotheses about the nature of the experiment. To some degree they were probably less concerned with the value of research than a college population would be. This in itself is desirable as such factors would seem to produce superficial compliance to (or rebellion against) the demand characteristics perceived, thus reducing the possibility of getting at what was really of interest. However, the Ss may have perceived other demand characteristics (e.g. perhaps by virtue of things said by the teachers). These were not known to the E but may have been significant.

Finally, there are some general methodological

and theoretical problems in conformity studies. The emphasis here is on studies in general, i.e. the following criticisms can be applied to many studies, not just this one.

In discussing determinants of conformity in the Introduction, many factors were mentioned which increase conformity. Frequently researchers attempt to incorporate as many of these as possible into a study. In this study several factors were working toward the induction of conformity and many were working against it. For example, simply informing people of other's opinions can induce some change. The group may have been at least somewhat cohesive. And as the Ss were adolescents they should have been just past the peak age of conformity. These factors may have worked to the advantage of the study.

However, there were many variables operating in the study which may have decreased conformity. It should be remembered, however, that the design of this study was not unlike many others and these problems are typical of many conformity and attitude change studies. First, it was not a face-to-face group situation (e.g. the Asch type situation), and, in fact, was not even a simulated group (in the Crutchfield sense). It has been shown that there is less conformity in the latter than in the former (Deutsch & Gerard, 1955; Levy, 1960). The majority opinion given was not specified as

unanimous. There was not necessarily any conflict. And there was no public commitment. That a pre-test was used could also have been important. Lana (1966) pointed out that in attitude change studies a pre-test reduces the amount of change as it in itself serves as a commitment to some extent. It seems quite possible that the same may hold true in a study of conformity, although in this study the pre-test preceeded the conformity test by two weeks. And even though there was some similarity among Ss, it may not have held for dimensions directly relevant to the conformity measure.

Moving from general methodological problems to general theoretical ones, it is again possible to criticize this study as well as many others. It is possible, for example, to conclude that this was not a study of conformity at all. Conformity was viewed in terms of attitude formation. It was essentially a congruence criterion rather than a movement criterion. The movement criterion corresponds more closely to attitude change. Allen (1965) would not call this a study of conformity at all but rather a measure of social influence. He defines conformity as the special case of social influence where the group opposes the individual, thereby implying that movement is a necessary criterion. However, the approach used here is not an uncommon one.

In addition, the "norms" used were actually state-

ments of majority views or consensus rather than moral obligations or statements of what one should or ought to do. Homans (1950) defined norms as the latter only. But norms have typically been operationalized in the way they were used in this study. Homan's definition has certainly not been commonly employed.

The communication was not a persuasive communication with clear intent to influence, it was rather a statement of supposed fact (although this does not seem to be out of line with many conformity studies, group consensus is frequently used with no overt attempt to influence).

Also the conformity responses emitted were probably cases of Kelman's (1958, 1961) compliance or possibly identification (especially in the case of the group dependents) rather than internalization. And no attempt was made to assess the effects over time, thus conversion (Blake & Mouton, 1961a) cannot be said to have occurred. It may well have been a case of public conformity or compliance without private acceptance (Festinger, 1953; Jahoda, 1959). While this is a relevant criticism, few studies have incorporated assessment of conversion or private acceptance. This may be a separate problem and while worthy of further attention, it may not imply any serious criticism of conformity per se. The phenomenon of conformity deserves study regardless of whether or not true change or conversion occurs.

Further, it is difficult to distinguish whether there was normative or informational influence (Deutsch & Gerard, 1955). Even though the concern was with normative influence there was no doubt a component of each involved. If it had been possible to separate the two then more precision might have been gained as one might predict that independents would be more susceptible to informational influence while group dependents might be more susceptible to normative influence.

In sum, the three problem areas can probably all be dealt with in future research. It would be possible to use a different sample in a more controlled situation. It would be possible to improve the measuring devices (e.g. use more items). And since a congruence criterion was used, probably a movement criterion should be included to gain more precision and power.

References

- Allen, V. L. Situational factors in conformity. In L. Berkowitz (Ed.), Advances in experimental social psychology, Vol. 2. New York: Academic Press, 1965. Pp 133-175.
- Allport, F. H. The J-curve hypothesis of conforming behavior. J. soc. Psychol., 1934, 5, 141-183.
- Asch, S. E. Effects of group pressure upon the modification and distortion of judgment. In H. Guetzkow (Ed.), Groups, leadership and men. Pittsburgh, Penn.: Carnegie Press, 1951. Pp. 177-190.
- Asch, S. E. Group forces in the modification and distortion of judgments. Ch. 16 in S. E. Asch, Social psychology. Englewood Cliffs, N. J.: Prentice-Hall, 1952.
- Asch, S. E. Issues in the study of social influences on judgment. In I. A. Berg & B. M. Bass (Eds.), Conformity and deviation. New York: Harper, 1961. Ch. 4, pp. 143-158.
- Back, K. W. Influence through social communication. J. abnorm. soc. Psychol., 1951, 46, 9-23.
- Back, K. W. & Davis, K. L. Some personal and situational factors relevant to consistency and prediction of conforming behavior. Sociometry, 1965, 28, 227-240.
- Barron, F. Complexity-simplicity as a personality dimension. J. abnorm. soc. Psychol., 1953, 48, 163-172.
- Bass, B. M. Conformity, deviation, and a general theory of interpersonal behavior. In I. A. Berg & B. M. Bass (Eds.), Conformity and deviation. New York: Harper, 1961. Ch. 2, pp. 38-100.
- Beloff, Halla. Two forms of social conformity: acquiescence and conventionality. J. abnorm. soc. Psychol., 1958, 56, 99-104.
- Berkowitz, L. Liking for the group and the perceived merit of the group's behavior. J. abnorm. soc. Psychol., 1957, 54, 353-357. (a)
- Berkowitz, L. Effects of perceived dependency relationships upon conformity to group expectations. J. abnorm. soc. Psychol., 1957, 55, 350-354. (b)

- Berkowitz, L., & Lundy, R. M. Personality characteristics related to susceptibility to influence by peers or authority figures. J. Pers., 1957, 25, 306-316.
- Bernberg, R. E. Personality correlates of social conformity. J. appl. Psychol., 1954, 38, 148-149.
- Bersheid, Ellen. The effects of communicator-communicatee value similarity and dissimilarity upon opinion change. Dissert. Abstr., 1966, 27, 1108-A - 1109-A.
- Blake, R. R. & Mouton, Jane S. Conformity, resistance, and conversion. In I. A. Berg & B. M. Bass (Eds.), Conformity and deviation. New York: Harper, 1961. Ch. 1, pp. 1-37. (a)
- Blake, R. R. & Mouton, Jane S. The experimental investigation of interpersonal influence. In A. D. Biderman & H. Zimmer (Eds.), The manipulation of human behavior. New York: Wiley, 1961. Pp. 216-270. (b)
- Blake, R. R., Helson, H., & Mouton, Jane S. The generality of conformity behavior as a function of factual anchorage, difficulty of task and amount of social pressure. J. Pers., 1956, 25, 294-305.
- Brock, T. C. Communicator-recipient similarity and decision change. J. Pers. soc. Psychol., 1965, 1, 650-654.
- Carter, L. F., Hill, R. J., & McLemore, S. D. Social conformity and attitude change within nonlaboratory groups. Sociometry, 1967, 30, 1-13.
- Centers, R. & Horowitz, Miriam. Social character and conformity: A differential in susceptibility to social influence. J. soc. Psychol., 1963, 60, 343-349.
- Chipman, A. Conformity as a differential function of social pressure and judgment difficulty. J. soc. Psychol., 1966, 70, 299-311.
- Cohen, B. F. A probability model for conformity. Sociometry, 1958, 21, 69-81.
- Cohn, T. S., Yee, W., & Brown, V. Attitude change and interpersonal attraction. J. soc. Psychol., 1961, 55, 207-211.

- Cooley, C. H. Human nature and the social order. New York: Scribner, 1922.
- Costanzo, P. R. & Shaw, M. E. Conformity as a function of age level. Child Developm., 1966, 37, 967-975.
- Crutchfield, R. S. Conformity and character. Amer. Psychologist, 1955, 10, 191-198.
- Deutsch, M. & Gerard, H. A study of normative and informational social influence upon individual judgment. J. abnorm. soc. Psychol., 1955, 51, 629-636.
- DiVesta, F. J. Effects of confidence and motivation on susceptibility to informational social influence. J. abnorm. soc. Psychol., 1959, 59, 204-209.
- DiVesta, F. J. & Cox, L. Some dispositional correlates of conformity behavior. J. soc. Psychol., 1960, 52, 259-268.
- Downing, J. Cohesiveness, perception, and values. Human Relat., 1958, 11, 157-166.
- Edwards, A. L. The social desirability variable in personality assessment and research. New York: Dryden, 1957.
- Eisenstadt, S. N. Studies in reference group behavior. Human Relat., 1954, 7, 191-216.
- Endler, N. S. Conformity analyzed and related to personality. J. soc. Psychol., 1961, 53, 271-283.
- Ferguson, L. W. An analysis of the generality of suggestibility to group opinion. Charact. Pers., 1944, 12, 237-243.
- Festinger, L. Informal social communication. Psychol. Rev., 1950, 57, 271-282.
- Festinger, L. An analysis of compliant behavior. In M. Sherif & O. Wilson (Eds.), Group relations at the crossroads. New York: Harper, 1953. Pp. 232-256.
- Festinger, L. A theory of social comparison processes. Human Relat., 1954, 7, 117-140.
- Fisher, S., Williams, H. L., & Lubin, A. Personal predictors of susceptibility to social influence. Amer. Psychologist, 1957, 12, 360. (abstract)

- Gerard, H. B. The effect of different dimensions of disagreement on the communication process in small groups. Human Relat., 1953, 6, 249-272.
- Gerard, H. B. The anchorage of opinions in face-to-face groups. Human Relat., 1954, 7, 313-326.
- Goldberg, S. C. Three situational determinants of conformity to social norms. J. abnorm. soc. Psychol., 1954, 49, 325-329.
- Goldstein, M. J. The social desirability variable in attitude research. J. soc. Psychol., 1960, 52, 103-108.
- Hardy, K. R. Determinants of conformity and attitude change. J. abnorm. soc. Psychol., 1957, 54, 289-294.
- Harper, F. F. B. & Tuddenham, R. D. The sociometric composition of the group as a determinant of yielding to a distorted norm. J. Psychol., 1964, 58, 307-311.
- Harper, R. A. Is conformity a general or a specific behavior trait? Amer. Sociol. Rev., 1947, 12, 81-86.
- Hartley, Ruth E. Personal characteristics and acceptance of secondary groups as reference groups. J. ind. Psychol., 1957, 13, 45-55.
- Hartley, Ruth E. Relationships between perceived values and acceptance of a new reference group. J. soc. Psychol., 1960, 51, 181-190. (a)
- Hartley, Ruth E. Norm compatibility, norm preference, and the acceptance of new reference groups. J. soc. Psychol., 1960, 52, 87-95. (b)
- Harvey, O. J. Some cognitive determinants of influencibility. Sociometry, 1964, 27, 208-221.
- Harvey, O. J. & Rutherford, Jeanne. Gradual and absolute approaches to attitude change. Sociometry, 1958, 21, 61-68.
- Harvey, O. J., Hunt, D. E., & Schroder, H. M. Conceptual systems and personality organization. New York: Wiley, 1961.

- Helson, H., Blake, R. R. & Mouton, Jane S. An experimental investigation of the effectiveness of the "big lie" in shifting attitudes. J. soc. Psychol., 1958, 48, 51-60.
- Hogge, J. H. Attitude change in a primary group. Dissert. Abstr., 1967, 27, 3120-A.
- Hollander, E. P. Some points of reinterpretation regarding social conformity. Sociol. Rev., 1959, 7, 159-168.
- Hollander, E. P. Leaders, groups, and influence, New York: Oxford Univ. Press, 1964.
- Hollander, E. P. & Willis, R. H. Some current issues in the psychology of conformity and nonconformity. Psychol. Bull., 1967, 68, 62-76.
- Homans, G. C. The human group. New York: Harcourt-Brace, 1950.
- Hovland, C. I. & Pritzker, H. A. Extent of opinion change as a function of amount of change advocated. J. abnorm. soc. Psychol., 1957, 54, 257-261.
- Israel, J. Experimental change of attitudes using the Asch-effect. Acta Sociol., 1963, 93-104.
- Jackson, J. M. & Saltzstein, H. D. The effect of person-group relationships on conformity pressures. J. abnorm. soc. Psychol., 1958, 57, 17-24.
- Jahoda, Marie. Conformity and independence. Human Relat., 1959, 99-120.
- Janis, I. L. & Field, P. B. A behavioral assessment of persuasibility: Consistency of individual differences. In C. I. Hovland & I. L. Janis (Eds.), Personality and persuasibility. New Haven: Yale Univ. Press, 1959. Pp. 29-54. (a)
- Janis, I. L. & Field, P. B. Sex differences and personality factors related to persuasibility. In C. I. Hovland & I. L. Janis (Eds.), Personality and persuasibility. New Haven: Yale Univ. Press, 1959. Pp. 55-68. (b)
- Julian, J. W. & Steiner, I. D. Perceived acceptance as a determinant of conformity behavior. J. soc. Psychol., 1961, 55, 191-198.

- Kelley, H. H. Two functions of reference groups. In G. E. Swanson, et al. (Eds.), Readings in social psychology. (Rev. ed.). New York: Holt, 1952, Pp. 410-414.
- Kelley, H. H. & Woodruff, C. L. "Members" reactions to apparent group approval of a counternorm communication. J. abnorm. soc. Psychol., 1956, 52, 67-74.
- Kelman, H. C. Compliance, identification, and internalization: Three processes of opinion change. J. conflict Resolution, 1958, 2, 51-60.
- Kelman, H. C. Processes of opinion change. Public Opin. Quart., 1961, 25, 57-78.
- Kiesler, C. A. & Corbin, L. H. Commitment, attraction, and conformity. J. Pers. soc. Psychol., 1965, 2, 890-895.
- Kramer, C. Y. Extension of multiple range tests to group means with unequal numbers of replications. Biometrics, 1956, 12, 307-310.
- Krech, D., Crutchfield, R. S., & Ballachey, E. Individual in society. New York: McGraw Hill, 1962.
- Lana, R. E. Inhibitory effects of a pretest on opinion change. Educ. Psychol. Measmt., 1966, 26, 139-150.
- Levy, L. Studies in conformity: A methodological note. J. Psychol., 1960, 50, 39-41.
- Luchins, A. S. & Luchins, Edith H. On conformity with true and false communications. J. soc. Psychol., 1955, 42, 283-304.
- Luchins, A. S. & Luchins, Edith H. On conformity with judgments of a majority or an authority. J. soc. Psychol., 1961, 53, 303-316.
- Lundy, R. M. & Berkowitz, L. Cognitive complexity and assimilative projection in attitude change. J. abnorm. soc. Psychol., 1957, 55, 34-37.
- Linton, Harriet & Graham, Elaine. Personality correlates of persuasibility. In C. I. Hovland & I. L. Janis (Eds.), Personality and persuasibility. New Haven: Yale Univ. Press, 1959. Pp. 69-101.
- McDavid, J. Personality and situational determinants of conformity. J. abnorm. soc. Psychol., 1959, 58, 241-246.

- McDavid, J. & Sistrunk F. Personality correlates of two kinds of conforming behavior. J. Pers., 1964, 32, 420-434.
- McGee, R. K. The relationship between response style and personality variables: II. The prediction of independent conformity behavior. J. abnorm. soc. Psychol., 1962, 65, 347-351.
- McGhee, P. E. & Teevan, R. C. Conformity behavior and need for affiliation. J. soc. Psychol., 1967, 72, 117-121.
- McKeachie, W. J. Individual conformity to attitudes of classroom groups. J. abnorm. soc. Psychol., 1954, 49, 282-289.
- Mangan, G. I., Quatermain, D., & Vaughan, G. Taylor MAS and group conformity. J. abnorm. soc. Psychol., 1960, 61, 146-147.
- Mann, R. D. A review of the relationship between personality and performance in small groups. Psychol. Bull., 1959, 56, 241-270.
- Marlowe, D. & Crowne, D. P. The approval motive. New York: Wiley, 1964.
- Marple, C. H. The comparative suggestibility of three age levels to the suggestion of groups vs. expert opinion. J. soc. Psychol., 1933, 4, 176-186.
- Meunier, M. & Rule, Brendan, G. Anxiety, confidence, and conformity. J. Pers., 1967, 35, 498-504.
- Meyers, W. J. & Hohle, R. H. Questionnaire-anxiety and social conformity. Psychol. Rep., 1962, 11, 436.
- Moeller, G. & Applezweig, M. H. A motivational factor in conformity. J. abnorm. soc. Psychol., 1957, 55, 114-120.
- Moore, H. T. The comparative influence of majority and expert opinion. Amer. J. Psychol., 1921, 32, 16-20.
- Moran, G. Group cohesion and conformity behavior. Psychol. Rep., 1965, 17, 465-466.
- Nahemow, L. & Bennett, R. Conformity, persuasibility, and counternormative persuasion. Sociometry, 1967, 30, 14-25.

- Newcomb, T. M. Personality and social change. New York: Dryden, 1943.
- Newcomb, T. M. Social psychology. New York: Dryden, 1950.
- Newcomb, T. M. Attitude development as a function of reference groups: the Bennington study. In G. E. Swanson, et al., (Eds.), Readings in social psychology. New York: Holt, 1952. Pp. 420-430.
- Orne, M. T. On the social psychology of the psychological experiment: With particular reference to demand characteristics and their implications. Amer. Psychologist, 1962, 17, 776-783.
- Patel, M. & Gordon, J. E. Some personal and situational determinants of yielding to influence. J. abnorm. soc. Psychol., 1960, 61, 411-418.
- Peatman, J. G. Introduction to applied statistics. New York: Harper & Row, 1963.
- Rosen, B. C. The reference group approach to the parental factor in attitude and behavior formation. Soc. For., 1955, 34, 137-144. (a)
- Rosen, B. C. Conflicting group membership: A study of parent-peer group cross-pressures. Amer. Sociol. Rev., 1955, 20, 155-161. (b)
- Rule, Brendan, G. & Renner, J. Distance, group dispersion, and opinion change. Psych Rep., 1967, 17, 777-778.
- Schroder, H. M. & Hunt, D. E. Dispositional effects upon conformity at different levels of discrepancy. J. Pers., 1958, 26, 243-258.
- Schroder, H. M., Driver, M. J. & Streufert, S. Human information processing. New York: Holt, 1967.
- Sherif, M. A study of some social factors in perception. Arch. Psychol., 1935, 27, No. 187.
- Sherif, M. The concept of reference groups in human relations. In M. Sherif & M. O. Wilson (Eds.), Group relations at the crossroads. New York: Harper, 1953. Pp. 203-231.
- Sherif, M. Conformity-deviation, norms, and group relations. In I. A. Berg & B. M. Bass (Eds.), Conformity and deviation. New York: Harper, 1961. Pp. 159-198.

- Sherif, M. & Harvey, O. J. A study in ego functioning: Elimination of stable anchorages in individual and group situations. Sociometry, 1952, 15, 272-305.
- Sherif, M. & Sherif, Carolyn. Reference groups: Exploration into conformity and deviation of adolescents. New York: Harper Row, 1964.
- Shibutani, T. Reference groups as perspectives. Amer. J. Sociol., 1955, 60, 562-569.
- Siegel, Alberta E. & Siegel, S. Reference groups, membership groups, and attitude change. J. abnorm. soc. Psychol., 1957, 55, 360-364.
- Smith, R. J. Explorations in nonconformity. J. soc. Psychol., 1967, 71, 133-150. (a)
- Smith, R. J. Further evidence for two varieties of nonconformity. Psych. Rep., 1967, 20, 885-886. (b).
- Steiner, I. E. & Vannoy, J. S. Personality correlates of two types of conformity behavior. J. Pers. soc. Psychol., 1966, 4, 307-315.
- Strickland, Bonnie R. & Crowne, D. P. Conformity under conditions of simulated group pressure as a function of the need for social approval. J. soc. Psychol., 1962, 58, 171-181.
- Tuckman, B. W. Integrative complexity and attitudinal orientation. Percept. Mot. Skills, 1965, 21, 838.
- Tuckman, B. W. Integrative complexity: Its measurement and relation to creativity. Educ. Psychol. Measmt., 1966, 26, 369-382.
- Tuddenham, R. D. The influence of a distorted group norm upon individual judgment. J. Psychol., 1958, 46, 227-241.
- Tuddenham, R. D. Correlates of yielding to a distorted group norm. J. Pers., 1959, 27, 272-284.
- Turner, R. H. Role-taking, role standpoint, and reference group behavior. Amer. J. Sociol., 1955-56, 61, 316-328.
- Vaughan, G. M. The trans-situational aspect of conforming behavior. J. Pers., 1964, 32, 335-354.

- Vaughan, G. M. & White, K. D. Conformity and authoritarianism re-examined. J. Pers. soc. Psychol., 1966, 3, 363-366.
- Walker, E. L. & Heyns, R. N. (Eds.), An anatomy for conformity. Englewood Cliffs, N. J.: Prentice-Hall, 1962.
- Weiner, H. & McGinnies, E. Authoritarianism, conformity, and confidence in a perceptual judgment situation. J. soc. Psychol., 1961, 55, 77-84.
- Wells, W. D., Weiner, G., & Rubel, M. Conformity and authoritarian personality. J. Psychol., 1956, 42, 133-136.
- Wheeler, D. & Jordan, H. Change of individual opinion to accord with group opinion. J. abnorm. soc. Psychol., 1929, 24, 203-206.
- White, Martha S. Attitude change as related to perceived majority opinion. Lackland Air Force Base, Tex.: Air Force Personnel and Training Research Center, June, 1957. (Research Report AFPTRC-TN-57-79, ASTIA Document No. 131431.)
- White, K. D. & Vaughan, G. M. Some sex differences in relating trans-situational conformity to personality. Percept. Mot. Skills, 1967, 24, 190.
- Whittaker, J. O. Sex differences and susceptibility to interpersonal persuasion. J. soc. Psychol., 1965, 66, 91-94.
- Wiener, M. Uncertainty of judgment as a determinant of conformity behavior. Amer. Psychologist, 1956, 11, 407. (abstract)
- Wiener, M., Carpenter, Janeth T., & Carpenter, B. Some determinants of conformity behavior. J. soc. Psychol., 1957, 45, 289-297.
- Willis, R. H. Two dimensions of conformity-nonconformity. Sociometry, 1963, 26, 499-513.
- Willis, R. H. Conformity, independence, and anticonformity. Human Relat., 1965, 18, 373-388.
- Willis, R. H. Conceptualizing conformity and its alternatives. Paper presented at the Western Psychological Association, March, 1968.

- Willis, R. H. & Hollander, E. P. An experimental study of three response modes in social influence situations. J. abnorm. soc. Psychol., 1964, 69, 150-156. (a).
- Willis, R. H. & Hollander, E. P. Supplementary note: Modes of responding in social influence situations. J. abnorm. soc. Psychol., 1964, 69, 157. (b)
- Wilson, R. S. Personality patterns, source attractiveness, and conformity. J. Pers., 1960, 28, 186-199.
- Wyer, R. S. Effects of incentive to perform well, group attraction, and group acceptance on conformity in a judgmental task. J. Pers. soc. Psychol., 1966, 4, 21-26.
- Youniss, R. P. Conformity to group judgments in its relation to the structure of the stimulus situation and certain personality variables. Ph.D. Dissert., Washington, D. C.: Catholic Univ. of America Press, 1958.

Appendix A

Reference Group Questionnaire

Self Instructions (also read aloud):

Attitude Comparison Survey

Following is a list of topics about which people may have different attitudes or opinions. We would like to know how you feel about these compared to high school students in general, your friends, your parents, your teachers, and juvenile delinquents. For each item, consider what you think about the topic and then put a plus (+) in the box below each group whose attitudes are the same or very similar to yours, put a minus (-) in the box below each group whose attitudes on the subject are different from yours. In each case consider what you think most of the people in the group believe, e.g. most high school students, most of your friends, most teachers, etc. Please do not leave any boxes unmarked, if you are not sure, guess.

For example:

Going to movies.

	High School Students	Parents	Teachers	Juvenile Delinquents
Friends				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The answers given above indicate that your attitude toward going to the movies is the same as most high school students, your friends, and most juvenile delinquents but different from your parents and most teachers (e.g. maybe you, your friends, most high school students, and most juvenile delinquents enjoy going to movies but you don't think parents or teachers do, or maybe you and all those marked with a plus approve of all types of movies but you don't think those marked with a minus do).

Additional instructions read to Ss:

We are not interested in your attitudes but simply how they compare with the other groups; that is, no matter what you think or feel about the issue, do your friends, high school students in general, etc. think the same (+) or different (-).

Appendix A - continuedThe test items:

1. Preferences in works of art.
2. Showing that one is keeping up with the latest fads.
3. Views towards interfaith dating or marriage.
4. The attitude one has toward religion.
5. Preferences in recreational activities.
6. Views on high school students smoking.
7. The importance of going to church.
8. Preferences in types of music.
9. Attitudes towards high school students drinking.
10. The role of religion in everyday life.
11. Preferences in the books one reads.

Instructions for scoring:

Each S was given a score of 0 to 11 for each group indicating the number of times he agreed with the group.

Appendix B

Initial Attitude Items

Self Instructions (also read aloud):

Opinion Questionnaire

Following are several topics about which people may have varying opinions. Read each statement carefully. To indicate your own personal agreement or disagreement, place a check (X) in the appropriate space along the line. Also indicate how familiar you are with the issue or how much you have thought about it (not at all familiar, somewhat familiar, or very familiar).

Additional instructions read to Ss:

Remember, there are no right or wrong answers. We are only interested in your opinion. The answers range from agree completely to disagree completely with neutral in the center. Answer all questions, even when you are unfamiliar with the issue.

The test items:

1. City planners should consider the aesthetic nature of their plans, not just their usefulness.
2. Educational television will be a vital part of college education in the future.
3. Censorship is necessary as those who make movies, write books, etc. do not seem to exert any self control.
4. It cannot be said that there is such a thing as religious drama but merely some plays with ethical and moral overtones.
5. The golden section and laws of proportion are very important in good art work.
6. Radio today, in a society predominated by television, must drastically change its approach and style or it will soon be a dead institution.
7. Writers have no business meddling in politics, nor do any other artists.
8. A work of art loses most of its vital impact if the social setting in which it was created is ignored.
9. Architecture is an art form, it should not be considered simply utilitarian.
10. If the government subsidizes the arts, they still should not be allowed to control the work of the artist.

Appendix B - continued

11. The interest in "camp" movies is simply an attempt to cling to and idealize the past.
12. Ballet and modern dance are so different that they can never be effectively combined.
13. Cable television would be discriminating because only the rich could afford to hook up to it and benefit from the advantages.
14. Squash is a far more exciting game than handball.
15. A jazz musician may be much more creative if he is not required to earn a living with his music.
16. Government subsidy of the arts is an excellent way to insure the continued creativity of a society.
17. Training actors in Method acting limits the actors' ability, free expression, and creativity.
18. Pay television with no advertising would vastly improve the quality of television programs.
19. Emphasis on the anti-hero, popular in books in the past few years, carries underexaggeration to the ridiculous.
20. Young children's art work is frequently very similar to modern adult art work.
21. The writer is responsible for intelligent and challenging social criticism.
22. When jazz musicians start making records for popular appeal, this "going commercial" usually marks the end of their really creative work.

Instructions for scoring:

Scoring was done by items (over all Ss) to determine the most neutral items. Each item was scored -2 to +2. Scores used were total absolute value (summed regardless of sign), raw value (summed considering sign), and familiarity (1 = not at all familiar to 3 = very familiar). The first was an indicator of how strong the attitudes were for each item, the second indicated the direction of the attitudes, and the last indicated familiarity. All were used as criteria.

Appendix C

Conformity Measure

Self Instructions (also read aloud):

Opinion Questionnaire

Following are several topics about which people may have varying opinions. Read each statement carefully. To indicate your own personal agreement or disagreement, place a check (X) in the appropriate space along the line.

The test items (Form B1):

1. A work of art loses most of its vital impact if the social setting in which it was created is ignored. (The majority of high school students strongly agree with this item.)
2. Cable television would be discriminating because only the rich could afford to hook up to it and benefit from the advantages. (The majority of teachers strongly disagree with this item.)
3. City planners should consider the aesthetic nature of their plans, not just their usefulness. (The majority of high school students strongly disagree with this item.)
4. The golden section and laws of proportion are very important in good art work. (The majority of juvenile delinquents strongly disagree with this item.)
5. When jazz musicians start making records for popular appeal, this "going commercial" usually marks the end of their really creative work. (The majority of teachers strongly agree with this item.)
6. It cannot be said that there is such a thing as religious drama but merely some plays with ethical and moral overtones. (The majority of high school students strongly disagree with this item.)
7. Emphasis on the anti-hero, popular in books in the past few years, carries underexaggeration to the ridiculous. (The majority of juvenile delinquents strongly agree with this item.)
8. Training actors in Method acting limits the actors' ability, free expression, and creativity. (The majority of teachers strongly disagree with this item.)

Appendix C - continued

9. Architecture is an art form, it should not be considered simply utilitarian. (The majority of juvenile delinquents strongly disagree with this item.)
10. Squash is a far more exciting game than handball. (The majority of high school students strongly agree with this item.)
11. The interest in "camp" movies is simply an attempt to cling to and idealize the past. (The majority of teachers strongly agree with this item.)
12. Government subsidy of the arts is an excellent way to insure the continued creativity of a society. (The majority of juvenile delinquents strongly agree with this item.)

Instructions for scoring:

Each item was scored from -2 to +2: +2 was assigned to the extreme end of the advocated direction. Ss were assigned absolute change scores (summed over items regardless of sign) and total conformity scores (summed over items considering sign). For example, item 1 in Form B1 would have strongly agree = +2, strongly disagree = -2. Ss were also given conformity scores for each group (the sum of which yielded the total conformity score).

Appendix D

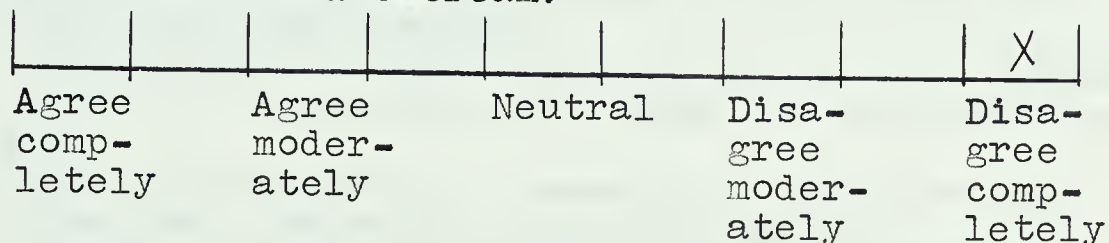
Nonconformity Scale

Self Instructions (also read aloud):

Attitude Scale

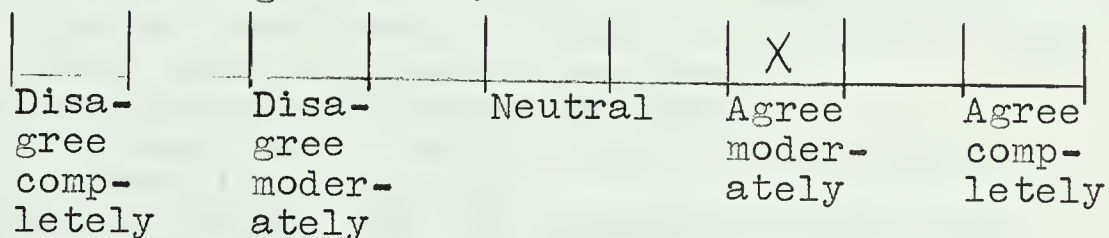
Following is a list of statements with which some people agree and others disagree. Please indicate the extent to which you agree or disagree with each statement by placing a check (X) in the appropriate place along the line. Be careful to note that for some statements complete agreement is on the left end of the line while for others complete agreement is on the right end. Read carefully the following two examples which illustrate the method.

I. I like vanilla ice-cream.



A person answering this statement who completely disliked vanilla ice-cream would place a check at the right end (complete disagreement) of the line as indicated;

II. I like foreign movies.



A person who liked foreign movies to some extent (moderately) would place a check somewhere near "agree moderately" on the right side of the line as indicated.

Note that you can agree or disagree to any extent along the line. Again, be careful of the fact that sometimes agreement with the statement appears on the left of the line and sometimes on the right. The center is always neutral. That is, it expresses no agreement or disagreement with the statement.

Appendix D -- continuedThe test items:

1. What the youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country.
2. I find it difficult to get rid of a salesman.
3. I am generally cynical about members of the opposite sex.
4. I trust people in most ways.
5. People all behave the same because they are afraid to be different.
6. I must admit that I would find it hard to have for a close friend a person whose manners or appearance made him somewhat repulsive, no matter how brilliant or kind he might be.
7. To get along well in a group you must go along with the other persons.
8. The only way to show that you are an individual today is to perform the unusual or unacceptable act.
9. There is less need to take risks once one has lived past the early, troubled years.
10. I think I am about average in my political, religious, and social beliefs.
11. Science must have as much to say about moral values as religion does.
12. Most people would be happier if they lived more with their fellows and did the same things.
13. I prefer team games to games in which one individual competes against another.
14. Humiliating experiences bother me.
15. It bothers me if people think I am being too unconventional or odd.
16. The unfinished and the imperfect often have greater appeal for me than the completed and polished.
17. It is time to replace the old with the new in all areas.
18. I don't act rude, even when doing so would discourage irritating people.
19. A group in which people disagree will be an ineffective group.
20. The wise person gives up adventurous schemes once he has reached a mature age.
21. One should be quite careful so as not to appear foolish.
22. I believe you should ignore other people's faults and try to get along with almost everyone.
23. I suspect people who seem very friendly upon first meeting them.

Appendix D - continued

24. Most laws today are so insulting to a person that they deserve to be broken.
25. Persons who cling to the old ways are almost invariably afraid of new policies and ideas.
26. It might be better to legalize the use of drugs and narcotics.
27. There is practically never an excuse for officially banning a book.
28. I like to fool around with new ideas, although they often turn out to have been a waste of time.
29. A drunken woman is no more disgraceful than a drunken man.
30. Some of my friends think that my ideas are impractical and even a bit wild.
31. I don't care if people think I'm eccentric.
32. Canadians are like sheep--afraid to stray from the flock.
33. When I'm clearly told not to do something I generally don't do it.

Instructions for scoring:

Items 6, 7, 17, 32, and 33 are fillers. All other items are scored from 1 to 9 (9 = most conformity) and then summed over the 28 items. Items for which agree completely was scored 9 were: 1, 2, 4, 5, 9, 10, 12, 13, 14, 15, 18, 19, 20, 21, 22, 24, and 29. Items for which disagree completely was scored 9 were: 3, 8, 11, 16, 23, 25, 26, 27, 28, 30, and 31.

Appendix E

Interpersonal Topical Inventory

Self Instructions (also read aloud):

Individual Topical Inventory

You will be given some situations and topics to which we would like you to respond. The responses are given in pairs. You are to choose one response from each pair. Choose the response that most closely fits your opinion or feeling and indicate your choice by blacking "A" or "B" corresponding to the response chosen. Always choose one member of each pair. Never choose both members of the pair and do not skip over any of the pairs. If you agree with both, choose the one you agree with most strongly. If you do not agree with either, choose the one you find the least disagreeable of the two.

Example:

Here is an example of the way the questions will be asked and the way they should be answered. The manner in which you will indicate your choice between the two given responses is illustrated below:

When I am confused . . .

(i)	
A	B
I try to find a solution and end the confusion.	I completely ignore the fact that I am confused.
(ii)	
A	B
I break out into a nervous sweat.	I remain calm at all times.

How to respond:

First: Decide which response you agree with most.

Second: Indicate which response you agree with most by blacking in the identifying letter on the IBM sheet. Thus, if in comparing the first pair of statements, you agree with the statement, "I try to find a solution and end the confusion," more than with the statement, "I completely ignore the fact that I am confused," you would

Appendix E - continued

black in the letter "A" (above the chosen statement). Having chosen one (never both, never neither) statement from the first pair of statements, you would then move on to the second pair. If, in considering the second pair, you find that you agree more with the statement, "I remain calm at all times," (as compared to the statement, "I break out into a nervous sweat") you would black in the letter "B" on the IBM sheet.

On the pages that follow there are 36 different pairs of responses. There are six pairs on a page. You are to select one response from each pair, the one that more accurately shows your opinion or feeling and record your choice by blacking in the letter indicating the statement chosen. Be frank and indicate, in each case, your true feeling or opinion or the reaction which you actually would make in the situation. Do not indicate how you should feel or act; rather, indicate how you do feel and act.

Make sure that you are aware of the situation or topic that each pair of responses refers to. You will find the situation or topic identified at the top of each page. All items on the page refer to the situation or topic appearing at the top of that page.

When you are finished, your paper should contain 36 marks. Check back and make sure that you have made 36 choices, no more no less.

- Remember:
- (1) Respond only once for each pair; that is, choose one member of the pair, never both, never neither. Indicate your choice by blacking in either "A" or "B".
 - (2) When you are finished you should have made 36 marks.

Work at your own rate of speed but work straight through the inventory without stopping. Once you have completed a page do not return to it.

Appendix E - continuedThe test items:

When I am criticized . . .

1. A. I try to take the criticism, think about it, and value it for what it is worth. Unjustified criticism is as helpful as justified criticism in discovering what other people's standards are.
B. I try to accept the criticism but often find that it is not justified. People are too quick to criticize something because it doesn't fit their standards.
2. A. I try to determine whether I was right or wrong. I examine my behavior to see if it was abnormal. Criticism usually indicates that I have acted badly and tends to make me aware of my own bad points.
B. It could possibly be that there is some misunderstanding about something I did or said. After we both explain our viewpoints, we can probably reach some sort of compromise.
3. A. I listen to what the person says and try to accept it. At any rate, I will compare it to my own way of thinking and try to understand what it means.
B. I feel that either I'm not right, or the person who is criticizing me is not right. I have a talk with that person to see what's right or wrong.
4. A. I usually do not take it with good humor. Although at times, constructive criticism is very good, I don't always think that the criticizer knows what he is talking about.
B. At first I feel that it is unfair and that I know what I am doing, but later I realize that the person criticizing me was right and I am thankful for his advice. I realize that he is just trying to better my actions.
5. A. I try to ask myself what advantages this viewpoint has over mine. Sometimes both views have their advantages and it is better to combine them. Criticism usually helps me to learn better ways of dealing with others.
B. I am very thankful. Often I can't see my own errors because I am too engrossed in my work at the time. An outsider can judge and help me correct the errors. Criticism in everyday life usually hurts my feelings, but I know it is for my own good.
6. A. It often has little or no effect on me. I don't mind constructive criticism too much, but I dislike destructive criticism. Destructive criticism should be ignored.

Appendix E - continued

- B. I try to accept and consider the criticism. Sometimes it has caused me to change myself; at other times I have felt that the criticism didn't really make much sense.

When I am in doubt . . .

7. A. I become uncomfortable. Doubt can cause confusion and make one do a poor job. When one is in doubt he should ask and be sure of himself.
B. I find myself wanting to remove the doubt, but this often takes time. I may ask for help or advice if I feel that my questions won't bother the other person.
8. A. I don't get too upset about it. I don't like to ask someone else unless I have to. It's better to discover the correct answer on your own.
B. I usually go to someone who knows the correct answer to my question. Sometimes I go to a book which will set me straight by removing the doubt.
9. A. I first try to reason things out and check over the facts. Often I approach others to get ideas that will provide a solution.
B. I think things over, ask questions, and see what I can come up with. Often several answers are reasonable and it may be difficult to settle on one.
10. A. I realize that I'll have to decide on the correct answer on my own. Others try to be helpful, but often do not give me the right advice. I like to judge for myself.
B. I usually try to find out what others think, especially my friends. They may not know the answer, but they often give me some good ideas.
11. A. I look over the problem and try to see why there is a doubt. I try to figure things out. Sometimes I just have to wait awhile for an answer to come to me.
B. I try to get some definite information as soon as possible. Doubt can be bad if it lasts too long. It's better to be sure of yourself.
12. A. I consider what is best in the given situation. Although one should not rush himself when in doubt, he should certainly try to discover the right answer.
B. I act according to the situation. Sometimes, doubt can be more serious than at other times and many of our serious doubts must go unanswered.

Appendix E - continued

When a friend acts differently towards me . . .

13. A. I am not terribly surprised because people can act in many different ways. We are different people and I can't expect to understand all his reasons for acting in different ways.
B. I am usually somewhat surprised but it doesn't bother me very much. I usually act the way I feel towards others. People worry too much about others' actions and reactions.
14. A. I find out why. If I have done something wrong I will try to straighten out the situation. If I think he's wrong, I expect him to clear things up.
B. I feel that I may have caused him to act in a different way. Of course, he may have other reasons for acting differently which would come out in time.
15. A. I first wonder what the trouble is. I try to look at it from his viewpoint and see if I might be doing something to make him act differently towards me.
B. It is probably because he has had a bad day, which would explain this different behavior; in other cases he may just be a changeable kind of person.
16. A. It is probably just because something is bothering him. I might try to cheer him up to help him out. If these things didn't work I would just wait for him to get over it.
B. I try to understand what his different actions mean. I can learn more about my friend if I try to figure out why he does things. Sometimes the reasons may not be very clear.
17. A. There has to be a definite reason. I try to find out this reason, and then act accordingly. If I'm right I'll let him know it. If he's wrong, he should apologize.
B. I usually let him go his way and I go mine. If a friend wants to act differently that's his business, but it's my business if I don't want to be around when he's that way.
18. A. I don't get excited. People change and this may cause differences. It is important to have friends, but you can't expect them to always be the same.
B. I like to get things back to normal as soon as possible. It isn't right for friends to have differences between them. Whoever is at fault should straighten himself out.

Appendix E - continued

This I believe about people . . .

19. A. Whatever differences may exist between persons, they can usually get along if they really want to. Although their ideas may not agree, they probably still have something in common.
B. People can learn from those who have different ideas. Other people usually have some information or have had some experience which is interesting and can add to one's knowledge.
20. A. People can act in all sorts of ways. No single way is always best, although at certain times a particular action might be wiser than others.
B. Each person should be able to decide the correct thing for himself. There are always a few choices to be made and the individual himself is in the best position to pick the right one.
21. A. Some people think they know what's best for others and try to give advice. These people shouldn't make suggestions unless asked for help.
B. There are certain definite ways in which people should act. Some don't know what the standards are and therefore need to be straightened out.
22. A. I can tell if I am going to get along with a person very soon after meeting him. Most people act either one way or another and usually it is not difficult to say what they are like.
B. It's hard for me to say what a person is like until I've known him a long time. People are not easy to understand and often act in unpredictable ways.
23. A. People have an outside appearance that usually isn't anything like what can be found on the inside, if you search long and hard enough.
B. Each person is an individual. Although some people have more good or bad points than others, no one has the right to change them.
24. A. People can be put into categories on the basis of what they're really like. Knowing the way a person really is helps you to get along with him better.
B. People are unlike one another in many respects. You can get along with people better and better understand them if you are aware of the differences.

Appendix E - continued

Leaders . . .

25. A. Leaders do not always make the right decisions. In such cases, it is wise for a man to look out for his own welfare.
B. Leaders are necessary in all cases. If a leader cannot make the right decisions another man should be found who can.
26. A. Leaders cannot provide all the answers. They are like other people--they have to try to figure out what action is necessary and learn from their mistakes.
B. Leaders make decisions sometimes without being sure of themselves. We should try to understand this, and think of ways to help them out.
27. A. I like a leader who is aware of how the group feels about things. Such a leader would not lead any two groups in exactly the same way.
B. A person should be able to put his confidence in a leader and feel that the leader can make the right decision in a different situation.
28. A. There are times when a leader shouldn't make decisions for those under him. The leader has the power to decide things, but each man has certain rights also.
B. A leader should give those under him some opportunity to make decisions, when possible. At times the leader is not the best judge of a situation and should be willing to accept what others have to say.
29. A. Some leaders are good, others are quite poor. Good leaders are those who know what is right for the men under them. These leaders deserve the respect of every man.
B. Leaders cannot be judged easily. Many things go to make up good leadership. Most people fall short in some way or another, but that is to be expected.
30. A. Leaders are needed more at certain times than at others. Even though people can work out many of their own problems, a leader can sometimes give valuable advice.
B. Some people need leaders to make their decisions. I prefer to be an individual and decide for myself, when possible. Most leaders won't let you do this.

Appendix E - continued

When other people find fault with me . . .

31. A. It means that someone dislikes something I'm doing. People who find fault with others are not always correct. Each person has his own ideas about what's right.
B. It means that someone has noticed something and feels he must speak out. It may be that we don't agree about a certain thing. Although we both have our own ideas, we can talk about it.
32. A. I first wonder if they are serious and why they have found fault with me. I then try to consider what they've said and make changes if it will help.
B. If enough people point out the same fault, there must be something to it. I try to rid myself of the fault, especially if the criticizers are people "in-the-know."
33. A. They have noticed something about me of which I am not aware. Although criticism may be hard to take, it is often helpful.
B. They are telling me something they feel is correct. Often they may have a good point which can help me in my own thinking. At least it's worthwhile to consider.
34. A. I may accept what is said or I may not. It depends upon who is pointing out the fault. Sometimes best to just stay out of sight.
B. I accept what is said if it is worthwhile, but sometimes I don't feel like changing anything. I usually question the person.
35. A. I like to find out what it means; since people are different from one another, it could mean almost anything. A few people just like to find fault with others but there's usually something to be learned.
B. There is something to be changed. Either I am doing something wrong or else they don't like what I'm doing. Whoever is at fault should be informed so that the situation can be set straight.
36. A. I don't mind if their remarks are meant to be helpful, but there are too many people who find fault just to give you a hard time.
B. It often means that they're trying to be disagreeable. People get this way when they've had a bad day. I try to examine their remarks in terms of what's behind them.

Appendix E - continuedInstructions for scoring:

Each item represents a choice between two systems. Scores are given as total responses to each system. The questions and the systems which the two answers represent are as follows:

	A	B		A	B		A	B
1.	3	2	13.	4	2	25.	2	1
2.	1	4	14.	1	3	26.	4	3
3.	3	1	15.	3	2	27.	3	1
4.	2	1	16.	3	2	28.	2	4
5.	4	3	17.	1	2	29.	1	4
6.	2	4	18.	4	1	30.	3	2
7.	1	3	19.	3	4	31.	2	4
8.	2	1	20.	4	2	32.	3	1
9.	3	4	21.	2	1	33.	3	4
10.	2	3	22.	1	4	34.	1	2
11.	4	1	23.	3	2	35.	4	1
12.	2	4	24.	1	3	36.	2	3

Scores for each system are then converted to deciles as follows:

Decile	System			
	1	2	3	4
10th	13+	12+	12+	13+
9th	12	11	11	12
8th	11	10	10	11
7th	10-11	9	9-10	10-11
6th	9-	8-	8-	9-

There are two scoring systems:

Criterion A: If S scores 9th or 10th decile in one system and 8th or lower in all other systems, classify him in his highest scoring system.

Criterion B: Ss who score 8th decile in one system and 6th or lower in all others may be also classified in highest scoring system.

Appendix F

Social Desirability

Self Instructions (also read aloud):

Research Inventory

Following is a list of statements which may or may not apply to you. If you think the statement is generally true of you, usually applies to you, circle true (T), if you think the statement is generally not true for you, circle false (F).

Be sure to answer each question.

The test items:

1. I feel anxiety about something or someone almost all the time.
2. I have been afraid of things or people that I knew could not hurt me.
3. I am not unusually self-conscious.
4. People often disappoint me.
5. I shrink from facing a crisis or difficulty.
6. It makes me impatient to have people ask my advice or otherwise interrupt me when I am working on something important.
7. I am happy most of the time.
8. I have had periods in which I carried on activities without knowing later what I had been doing.
9. I cry easily.
10. It does not bother me particularly to see animals suffer.
11. I dream frequently about things that are best kept to myself.
12. My parents and my family find more fault with me than they should.
13. I have reason for feeling jealous of one or more members of my family.
14. I am very seldom troubled by constipation.
15. I find it hard to keep my mind on a task or job.
16. Most any time I would rather sit and daydream than do anything else.
17. My family does not like the work I have chosen (or the work I intend to choose for my life work).
18. My sleep is fitful and disturbed.
19. Life is a strain for me much of the time.
20. I am easily embarrassed.
21. No one cares much what happens to me.
22. I usually expect to succeed in things I do.

Appendix F - continued

23. I sweat easily even on cool days.
24. My hands and feet are usually warm enough.
25. When in a group of people I have trouble thinking of the right things to talk about.
26. I can easily make other people afraid of me and sometimes do for the fun of it.
27. I sometimes feel that I am about to go to pieces.
28. I am liked by most people who know me.
29. Criticism or scolding hurts me terribly.
30. I cannot keep my mind on one thing.
31. I do not tire quickly.
32. It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of things.
33. I am not afraid to handle money.
34. I frequently notice my hand shakes when I try to do something.
35. I feel hungry most of the time.
36. I worry quite a bit over possible misfortunes.
37. It makes me nervous to have to wait.
38. I blush no more often than others.
39. I am never happier than when alone.

Instructions for scoring:

Ss are assigned one point for each socially desirable response. The responses which are keyed True for social desirability are: 3, 7, 14, 22, 24, 28, 31, 33, and 38. The responses which are keyed False for social desirability are: 1, 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 23, 25, 26, 27, 29, 30, 32, 34, 35, 36, 37, and 39.

Appendix G

General Information

Name: _____

Age (circle one): 15 16 17 18 19 other (specify) _____

Sex (circle one): Male Female

Grade (circle one): 10 11 12

Program (matriculation, vocational, etc.): _____

Nationality (circle one): Canadian non-Canadian

Socio-economic class. Consider all the factors that you think are relevant to socio-economic class, for example, financial status, cultural background, etc. Then fill in the blank with the letter from the list below which best represents your socio-economic class:

- | | |
|------------------|------------------------|
| a. upper class; | b. upper-middle class; |
| c. middle class; | d. lower-middle class; |
| e. lower class. | |

Educational level of family. Fill in the blank with the letter from the list below which best represents the educational level of your family:

- | | |
|------------------------|-------------------|
| a. very well educated; | b. well educated; |
| c. poorly educated. | |

Friends. We are interested in some of the characteristics of your friends. Please answer the questions below considering most of your friends, that is, the majority.

Do they go to this school? Yes _____ No _____

Are they in your grade? Yes _____ No _____

Average age (circle one): 15 16 17 18 19

Nationality (circle one): Canadian non-Canadian

Socio-economic class (select one from the list) _____

- | | |
|------------------|------------------------|
| a. upper class; | b. upper-middle class; |
| c. middle class; | d. lower-middle class; |
| e. lower class. | |

Intelligence (place a check mark at the appropriate place along the following line).

extremely intelligent	somewhat intelligent	not at all intelligent
--------------------------	-------------------------	---------------------------

Appendix H

General Questions

We are interested in checking on your understanding of what you were supposed to do. Would you please answer the following questions.

Did you have any questions about the procedure?

Were you confused at any point?

What did you understand the study to be about?

Comments:

Appendix I

General Instructions for First Session:

Today I have several questionnaires which I would very much like to have you fill out. This is part of a research project. The purpose of research is to try to understand problems which are important to us, about people in general, and the only way to do this is to ask people questions and then look at their responses. For this reason questionnaires, surveys and such are constructed and administered to as many people as possible. Thus I need your cooperation and will very much appreciate your help.

I want to stress that all of your responses are anonymous. They are not available to anyone in the school--either your teachers or the administration--they are ONLY for research purposes. They are held in the strictest of confidence. It is important that you answer every question, each response is important. However, if you find any question too objectionable, you don't have to answer it. Also, if you have very strong feelings about this, you don't have to participate. However, I want to remind you that your participation is badly needed and will really be appreciated; and remember that these questionnaires are anonymous.

Although these are not tests and you are not timed on them, we have several questionnaires to get through so I will tell you about how much time it should take you to get through each of them. The reason this will be done is that we want to get through all of the questionnaires during this period. So, at specified times I will interrupt you to go over the instructions for the next questionnaire. If you finish before I give the next instructions, as you probably will, please wait, you will have plenty of time. If you are not finished, please stop and listen to the instructions and then go back and finish the questionnaire you are working on.

Don't spend too much time thinking or worrying about any one question. Just read the item and put down your first response that comes to mind.

Appendix I - continued

General Instructions for Second Session:

I have come back today to ask you to participate in a bit more of the same research. We have been collecting norms on various attitudes. Now we are checking on the reliability of the items. This is part of a large scale study of the test items so various groups have been tested: high school students, university students, teachers, parents, juvenile delinquents, and other groups. We are interested in what happens to responses over time so people are being tested 2, 4, and 6 weeks apart.

Also, we have some information on how others responded to the items. We thought you might be interested in some of the results of the first testing session. So we have selected samples of group norms you might be interested in--you will be told how some of the groups responded, in each case it is a large majority.

You may begin when I give you the questionnaire. As soon as you are through I will pick up your paper and give you something else to do, so raise your hand immediately when you have completed the questionnaire.

Remember again, there are no right or wrong answers. And please work quietly and alone. Of course it is important that you don't talk while answering the questions.

B29897